Clinical Lecture

ON THE

ESSENTIALS OF WOUND TREATMENT.[1]

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GENTLEMEN,—Here is a pad of pure absorbent gauze and cotton, which has been removed from the left hand of a young person whom I happened to see the other day running down the street, to seek surgical aid at a neighbouring dispensary. Under a handkerchief stained with blood I found a clean-cut wound, extending an inch and a half from the dorsal aspect of the first knuckle round into the palm. A little artery spouted. The edges of the skin admitted of easy approximation, which I maintained with the elastic pad and a few compressing turns of absorbent bandage. In a few hours bloody serum had permeated the centre of the dressing, which was left to dry by evaporation. When, at the end of five days, I took off the bandage and pad, the fine linear cicatrix was barely visible, and the surrounding skin dry and painless.

I was in the hospital on April 29th when the man now before you was brought in. A cloth soaked with blood surrounded the left hand and forearm, and we were told that the accident had happened a few minutes previously, while the man was grinding a matchet,[2] on a millstone weighing a ton, and revolving rapidly by steam-power. The steel blade flew into several pieces, one of which appeared at a first glance to have nearly cut off the hand. The gaping wound extended for two and a half inches across the front of the wrist. The superficial tendons were divided, and the ulnar artery bled freely. I passed an acupressure needle under the proximal end of the divided vessel, and after satisfying

FIG. 1.

myself that the wound was free from a foreign body, brought the edges accurately together by five points of silver suture. The hand and forearm were surrounded with absorbent gauze and cotton pads and compressing bandage, the elbow bent at an acute angle, the palm of the hand rested on the upper end of the sternum, and perfect rest secured, by circular bandage round the trunk and the recumbent position. The acupressure needle was taken out on the fourth, the stitches on the fifth day, when the wound was nearly healed. On the eighth day the man was made an out-patient, and the same dressing was renewed every fourth day. This is the fortieth day since the accident, and you observe how fine and firm the scar is, without any subcutaneous matting, and with perfect freedom of the joint in every direction.

From first to last, neither of the two cases I have just brought before you was touched with a drop of liquid; the healing process advanced steadily and without complication under dry absorbent dressing, elastic pressure, perfect rest and position.

I satisfied myself with looking on while the next case was treated on the same principles by our house-surgeon, Mr. J. W. Moore. Just before admission E. H—— had fallen forward on the edge of a barrel, which inflicted a wound nearly three inches long a little to the left of the chin, exposing a considerable portion of the lower jaw and its depressor muscles. The edges of the wound were at once accurately adjusted with five points of silver suture, a fine drainage-tube was secured in the lower angle, and smooth pressure exerted with a fine soft bandage over a pad of pure absorbent gauze and cotton. The first dressing, with two sutures and the drainage tube, was removed the third day, when the absorbent pad was found to have taken up some sanguineous discharge, and the greater part of the wound was healed. The three remaining sutures were removed on

FIG. 2.

the eighth day. On the tenth day the wound was solid as it is now; the cicatrix linear, with the exception of the lower angle, which presents a slight pucker at the point where the drainage-tube was introduced. The dry absorbent and compressing dressing was changed four times altogether.

The essential features in the treatment of the three cases just briefly noticed were—firstly, accurate adjustment; secondly, absolute rest; thirdly, perfect drainage. The means for attaining these ends vary, but if you keep them steadily in view, and are light-handed and not meddlesome, you will not have much trouble in the treatment of the vast majority of incised wounds.

Here is a dressing (Fig. 3) I removed a few hours ago from the crown of the head of a private patient on whom I had operated three days previously for the removal of a sebaceous tumour. As soon as I had turned it out I adapted the edges accurately, and exerted pressure for a few minutes with the finger over a pledget of dry absorbent cotton; when this was stained with blood, I substituted for it a similar pledget soaked in styptic colloid, and over it a strip of dry lint. Under pressure for about three minutes longer the dressing dried and the patient left my consulting-room. When I saw him the next day, he was perfectly comfortable and attending to his business. It was not until the expiration of the third day that I poured a little ether over the pad to soften it; this was the work of a few seconds. On removing the dressing, the clean and dry scalp presented a firm cicatrix, of which you see, and feel, a linear cast in the centre of the dressing. The balsamum traumaticum of the old surgeons, the compound

[1] The materials of this lecture, condensed, re-arranged, and illustrated for the convenience of the readers of THE LANCET, formed the subject of four mornings' instruction to my clinical class, during the past session.

[2] A kind of slightly bent broadsword, used in the West Indian plantations for cutting down sugar-canes.

tincture of benzoine, collodion, and allied substances, are useful in wound treatment, on the same principle as Dr. B. W. Richardson's styptic colloid. This substance is produced by saturating ether with tannin and gun-cotton, a

FIG. 3.[3]

little tincture of benzoin being added.[4] It has the advantage of drying very rapidly and acting at the same time as a styptic and a splint, checking effusion and preventing motion.

A more formidable wound than any of the preceding, but treated on substantially the same principles and with equal success, was that of the patient now before you with this extensive cicatrix on the right side of his head. T. W—— was admitted into the hospital on April 29th, after being struck on the head by the beam of a steam-engine in motion. The wound commenced just behind and above the right ear, and extended upwards and backwards for a distance of three

FIG. 4.

and three-quarter inches, then forwards at right angles for four inches. The triangular flap was turned down and the bone exposed corresponding to its whole extent. Hæmorrhage profuse. The flap was replaced and secured with four silver sutures, a large dry pad of absorbent gauze and cotton, and a smoothly compressing bandage. Three days afterwards, the temperature being 102·4°, the dressings were removed. The pad was soaked with a considerable amount of red serous discharge, but there was no redness of the skin, and the flap looked healthy and in good position; two sutures removed and fresh dry gauze and cotton pads applied, with increased pressure. The temperature fell steadily and was normal at the third dressing on the seventh day after admission. There was altogether very little suppuration, and the man left the hospital (May 19th) at the end of three weeks, the dry absorbent pads having been changed six times, and the cicatrix being sound throughout.

No cases illustrate more forcibly than extensive scalp wounds the advantages of immediate, perfect, and immovable adjustment, dry and infrequent dressing, surface-drainage, and elastic pressure.

We have so far been engaged in considering the treatment of recent simple wounds. Here is a much more serious one. My attendance was requested on the 11th by Mr. P——, who has kindly attended this morning for the class inspection. A fortnight previously a heavy piece of timber had inflicted a deep oblique wound in front of the right forearm just above the wrist. It was dressed with carbolic lotion, and, when inflammation supervened, with poultices. I found the man suffering intensely, the hand and forearm red and greatly swollen, wound measuring four inches by three-quarters of an inch, the bottom dirty grey, and the edges everted. I wiped the limb dry with a pledget of absorbent cotton, raised the hand vertically above the head, and surrounded it and the forearm as far as the elbow with dry pads of pure absorbent gauze and cotton. A softened millboard splint was placed on the dorsal, another on the palmar aspect of the limb, and a soft bandage applied with even pressure. The hand was now lowered and fixed on the chest, the tips of the fingers touching the opposite shoulder. A bandage round the trunk maintained immobility. The patient was at once easy, slept well the same night, and has not had a single bad symptom. He is engaged in an important patent manufacture, and has not lost an hour since I first saw him. The apparatus soon became loose from subsidence of the swelling; fresh cotton pads were applied with increasing pressure, and at the end of a week the wound was clean and half its former size, the surrounding skin pale, dry, and shrunken. In the course of a few days the healing advanced more slowly, and I dressed the wound with a lotion containing two grains of sulphate of zinc, a drachm of glycerine, and twenty drops of compound tincture of lavender, to the ounce of water, continuing the elastic pads and increased pressure. The stimulating effect was very apparent; the blue line of new skin advanced rapidly from the edge. I then omitted the lotion, and in another week the cicatrix was solid under a dry compressing pad. The cicatrix is now solid, and every movement perfect.

My first object was to empty the limb as much as possible of redundant blood; this I did by raising it vertically and compressing it under elastic pads of absorbent gauze and cotton and pasteboard splints. The latter are made with thin, rough millboard, which in the dry state tears easily to any shape, and absorbs water rapidly. According to the strength required, I put two or three thicknesses together, with intervening strips of bandage brushed over with thick mucilage. The material moulds beautifully under pressure, and acquires the strength of papier maché. When the swollen limb shrinks, accurate fitting being of the essence of success for pressure, the splints so constructed can be readily softened by pouring over them a small quantity of hot water; reapplied under pressure they mould and solidify again and again. The pads of absorbent gauze and cotton are beautifully elastic, a quality which is of the utmost value for safe, efficient, and comfortable pressure, which, with position, is the great agency for regulating the vital dynamics of the circulation, preventing effusion, and promoting absorption and healthy consolidation. For those who prefer the pads medicated with boracic, benzoic, or carbolic acid, Messrs. Southall Brothers and Barclay specially prepare them, but as a rule I only use the pure gauze and cotton pads, which may also be obtained from that firm. If, as sometimes is the case, a wound requires stimulation, I apply an appropriate lotion as in the preceding case. When the neighbourhood of a sore is very irritable, glycerine, pure or diluted with water, is an excellent application, as was long since demonstrated by Demarquay in a monograph of the highest clinical interest.[5]

The advantages derivable from an adaptation of therapeutic resources to the requirements of particular cases

[3] The engraving, of natural size, was taken from the dressing by Mr. Robert Paterson, of East Temple Chambers, who has executed the other illustrations from photographs.

[4] Sampson Gamgee on the Treatment of Wounds. London: Churchill. pp. 31 et seq.

[5] De la Glycérine et ses Applications à la Chirurgie et à la Médecine. Par M. Demarquay. Troisième édition. Paris: Asselin. 1867.

are well illustrated by the next two patients to be brought under your notice.

I abstract notes taken by Mr. Aubrey Finch, while acting house-surgeon, of the history of T. H——, aged thirty-three, who presented himself in the out-patient room on the 17th of May. The patient is a well-built, healthy man, by occupation a wood-turner, standing all day at his work. Seven years ago a piece of lignum vitæ grazed his right leg, and produced inflammation and ulcers, which have never since entirely healed, though treated by a variety of surgeons. When I first saw the leg (May 17th) it was covered with varicose veins; the skin, especially in the middle third, was thickened, purple, shining, and very tense and tender. On the inner side was a sore three inches in length, one inch and a half wide, with dirty greyish-yellow surface, and a few weak-looking, flabby granulations; edges uneven. The measurements round the two calves, six inches below the patellæ, were—right, 14½ inches; left, 12⅞ inches. Placing the man on his back on a couch, and raising the right leg vertically, the leg almost immediately became pale, the veins empty, and the tissues of the calf, previously so tense, flabby. At the expiration of sixty seconds from the time that an assistant held the right foot vertically above the pelvis, I measured the right calf at the exact spot previously measured. The decrease proved to be exactly one inch in one minute. A piece of lint soaked in glycerine was placed over the sore, the limb was covered with dry pads of pure absorbent gauze and cotton, bandaged with light pressure, and swung. The patient was at once easy, and two days afterwards the limb was pale and shrunken, the sore clean, healing, and much diminished in size. The same treatment was continued, and the note on the eighth day is to the effect that the sore had nearly healed, and the calf measured, at the point previously tested, 12⅞ inches—a decrease of 1⅛ inch. On the twentieth day from the commencement of our treatment the large sore which had proved rebellious for seven years was firmly healed, and the surrounding structures were pale, supple, and painless. Rest, position, and pressure have doubtless been the great factors in this healing process, the glycerine acting as a soothing application to the sore and skin, which we found so exquisitely tender. The cotton pads absorbed whatever discharge was poured out, but their elasticity as a medium of smooth pressure was their chief value. Those of you who watched this and the other cases closely noticed the scantiness of the discharge. One effect of perfect rest, elevation, and pressure is to lessen the afflux of blood to a limb so considerably that there is only enough for nourishment—none, or scarcely any, for effusive and cell proliferation; so shrinkage, dryness, sweetness, and reparative consolidation proceed abreast.

These truths receive further corroboration from the case of severely contused and open knee-joint in Ward 3. The patient, E. L——, aged 15, was brought on the 21st of May last, with a wound two inches long just on the outer side of the left patella, which was exposed, as were also the external lateral ligament, the outer condyle of the femur, and the corresponding tuberosity of the tibia. There was free escape of synovia and blood. The wound was inflicted by the cog-wheel of a steam-printing machine in motion, over which the lad was kneeling. While Dr. Oliver administered chloroform, Mr. E. M. Osborn, the acting house-surgeon who admitted the patient, brought the edges of the wound together with three points of silver suture, covered the knee with dry pads of pure absorbent gauze and cotton, and with a compressing bandage immobilised the limb in the straight position by the aid of pasteboard splints. When I saw the case a few hours afterwards, the patient was so tranquil, and the apparatus in such good position, that I made no other alteration than to raise the lower end of the bed six inches, and place under the injured leg one of my sand-and-water pillows, to ensure more perfect ease and immobility. The copious notes record the happy progress of the formidable injury. The wound into the knee-joint closed thoroughly by the first intention, although a purely superficial sore resulted from the sloughing of the contused skin. The temperature has been high on several occasions, but there has never been the slightest redness of the skin or puffiness of the joint. The patella has been throughout well defined and movable. On an average the compressing cotton pads have been changed every five days, and there is no reason to doubt that the limb will in a short time regain all its former mobility and strength. I have never seen so formidable an injury recover with less complication, and if you will study the case in conjunction with the others which I have brought under your notice, you will be assisted in forming a just estimate of the essentials in wound treatment. They are—accurate coaptation and absolute rest, to which position and pressure are eminently conducive. As a rule, dressing should be dry and infrequent, and drainage adapted to circumstances. No amount of clinical experience can dispense with the necessity of closely watching the thermometer; and while attending to the constitutional state, the local process of healing, when languid, may be accelerated by some of the well-known stimulating and cleansing local applications. When the parts are irritable soothing applications are of service, and of these the least harmful and most generally useful is glycerine.

In directing attention to a group of cases successfully treated on demonstrably sound principles of physiology and surgery, I have expressly avoided entering upon a controversy which has for some time divided the surgical world. Disputations may be more interesting than profitable; they often do much towards unveiling the truth, but they not unfrequently obscure it.

The adage that many roads lead to Rome finds abundant illustration in surgical practice. Pin your faith to no master; be a slave to no system. The scheme of nature is broad and comprehensive; truth is catholic and many-sided. Your chances of interpreting it rightly and practising it safely will be enhanced, in proportion as you keep your mind unbiased by theories and fashions, and strive to imitate nature in method and in means.

Lectures
ON THE
PHYSICAL EXAMINATION OF THE MOUTH AND THROAT.

Delivered to the Junior Class of Clinical Medicine, University College,

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LECTURE VI.

STERTOR; HICCOUGH; THE EXAMINATION OF THE OUTSIDE OF THE NECK AND NASO-PHARYNX; DYSPHAGIA.

GENTLEMEN,—There are certain other pseudo-vocal sounds of which a few words may be said as to their value as signs of disease.

The first of these is *stertor*. Stertor is of two kinds—palatal and laryngeal; their import being very different. Palatal stertor, or snoring, is caused by a vibration of the soft palate, brought about by the in-rushing streams of air through the mouth and nose. It is most easily produced when air is admitted both behind and in front of the soft palate, and is often audible in those who sleep with their mouth open. The deeper the sleep, the more easily is snoring produced, owing probably to the complete relaxation of the palatal muscles. It is heard at its maximum in cases of apoplexy, cerebral concussion, and poisoning with alcohol or opium. It can be produced at will, and it seems to me most easily produced when the air is inspired with extra force in order to overcome some slight obstruction at a point above the soft palate. When we wish to imitate it, we partially open the mouth, put the compressor naris into action, and inspire deeply. When the mouth and nose are both wide open stertor is not so easily produced. With the nose completely closed it is possible to produce only a very imperfect stertor. With the mouth completely closed no stertor is produced even during very deep inspiration. In children and adults who have big tonsils excessive snoring is very common, owing to the increased force of the blast

of air which has to be drawn through the narrowed faucial aperture. It is worth considering how much extra work is thus imposed upon a child with big tonsils. The causes of palatal stertor are—(1) extreme relaxation of the palate; (2) increased force of inspiration.

Laryngeal stertor is not to be confounded with palatal stertor. It is a non-vibratile stridulous sound, and betokens some obstruction to the passage of air through the larynx. When this laryngeal stertor is permanent it is usually spoken of as stridor. When the larynx is irritated, as by the passage of a brush on to the vocal cords, the glottis is partially closed and the inspiration becomes stridulous. Of course, if the closure of the glottis were perfect no stridor would be produced, because the vocal cords could not be made to vibrate by the in-going blast. Stridor is produced by forcible inspiration through a partially closed glottis. It is an *inspiratory* sound, be it observed, and not an *expiratory* one. In cases of paralysis of the posterior crico-arytenoid muscles the glottis is only partially opened during inspiration; and if the inspiratory effort be at all quickened, the semi-approximated cords are made to vibrate, and stridor is produced. During expiration the cords are thrust asunder by the out-coming blast, and no stridor occurs. The presence of inspiratory stridor, combined with unimpeded expiration and good vocalising power, would be sufficient ground for the diagnosis of paralysis, or want of power in the posterior crico-arytenoid muscles.

I wish to draw your attention to the fact that, in the stridor which occurs in this condition, there is no question whatever of any spasmodic action. It is entirely a paralytic or paretic phenomenon. Now we have the same kind of stridor (1) in chloroform narcosis, when it is a sign of imminent danger; (2) in whooping-cough; (3) in laryngismus stridulus. In all these conditions it has been ascribed to spasm, but, as I think, without sufficient cause.

In *chloroform narcosis*, at a time when every other muscle in the body is in a state of complete relaxation, it does not seem reasonable to expect a laryngeal *spasm*; for, be it observed, this stridor only occurs when narcosis is far advanced, and all spasmodic muscular action (which is common enough in the early stages) has passed away. Again, the stridor is removed by a forcible traction on the tongue, which by reflex stimulation brings about a contraction of the posterior crico-arytenoid muscles. Lastly, there is no stridor during expiration, which there should be if the cords were *spasmodically* held in apposition. We have seen that stridor undoubtedly does occur as a purely paralytic phenomenon, and I believe that that which accompanies chloroform narcosis is paralytic also.

In *whooping-cough* the stridor is produced after a prolonged and violent expiratory effort, when the diaphragm descends with force, and air is drawn violently through the glottis. Now as long as the proper relation exists between the size of the glottic aperture and the rate of movement of the incoming air the respiration is noiseless, but if the chink be not opened wide enough, and the incoming blast be violent, then stridor is produced. Probably, or rather certainly, both these conditions exist in whooping-cough, and the assumption of a glottic *spasm* is beyond the power of proof. In whooping-cough vomiting is a prominent feature, and one can conceive that a catarrhal condition involving the larynx and anterior and upper part of the œsophagus might well interfere with the proper action of the posterior crico-arytenoid muscles which are close to the summit of the œsophagus.

The remarks which I have made concerning whooping-cough apply also to *laryngismus stridulus*—that sudden arrest of respiration, followed by a crowing inspiration, which is so liable to occur in sickly children, especially the rickety. We know that in rickety children the bones and cartilages are soft, and the muscles flabby and weak. We know also, from an experiment of Marshall Hall's, that if a syringe be tied into the lower end of the trachea of a dead animal, and a very rapid exhaustive movement of the piston be made, the soft parts around the larynx will fall together and prevent the ingress of air to the larynx. In the flabby-tissued rickety child it is highly probable that something of this kind occurs; the aryteno-epiglottic folds probably fall together, and the posterior crico-arytenoids very likely fail to act, and hence the difficulty of getting air into the larynx. It has been assumed that laryngismus stridulus is a true spasm because it is accompanied by the so-called carpo-pedal contractions of the fingers and toes, and spasm in one place has led physicians to infer a spasm in another. These carpo-pedal contractions are probably brought about by the condition of asphyxia induced by the closure of the glottis. Convulsive action very commonly attends carbonic-acid poisoning, especially in children.

Hiccough is a symptom of disease concerning which a few words may be said. It is caused by a sudden spasmodic descent of the diaphragm at a time when the glottis is imperfectly opened, and hence a catching noise is produced by the passage of the air over the vocal cords. The essential part of the trouble is the descent of the diaphragm, which occurs suddenly and irrespective of any respiratory need. Normally, as the diaphragm descends in inspiration, the posterior crico-arytenoid muscles simultaneously contract and the vocal cords separate; but when the diaphragm descends suddenly and irrespective of any respiratory need, the vocal cords do not separate, and hence the noise of hiccough is produced. The cause of hiccough is usually to be found in an over-distended stomach, and it is very common in children in whom convulsive movements are very easily produced. Any irritation of the phrenic nerve on the under surface of the diaphragm, such as peritonitis, will cause hiccough. Irritation of the trunk of the phrenic will produce it also, and occasionally it is of cerebral origin.

Stridor may be inspiratory, expiratory, or both. One cause of inspiratory stridor is a failure of the glottis to dilate. It may be produced also by warty growths, which are drawn towards the glottis only in inspiration. A pure expiratory stridor may be caused by a growth below the cords being blown upwards into the glottic chink during expiration. A stridor accompanying both sounds is indicative of a narrowing of the glottis of a permanent character. It is very important to listen accurately to the time of any laryngeal noise.

There is one common symptom of throat disease concerning which it may be well to say a few words. This is *dysphagia*, or difficulty of swallowing. Dysphagia may arise from paralysis or spasm of the pharyngeal muscles, from pain, or from mechanical obstruction. Each of these four causes is produced by many different conditions, some of which I will enumerate.

Paralytic dysphagia is most common as a sequela of diphtheria, owing to paralysis of the soft palate and the superior constrictor of the pharynx. It occurs also in bulbar paralysis, and when, as generally is the case, sensation as well as motion is in abeyance, food is very liable to find its way into the larynx, to the imminent risk of the patient's life. Not unfrequently also food returns through the nose.

Spasmodic dysphagia occurs in its most marked forms in hydrophobia, and occasionally in spinal meningitis. It is said to occur also in belladonna poisoning, but whether this be due to spasm or to excessive dryness of the mucous membrane is not quite clear. Any source of irritation of the throat, such as a fish-bone, or possibly a small ulcer, may cause a spasmodic contraction of the pharynx. Occasional trifling spasm is not an uncommon occurrence with patients who suffer from irritative dyspepsia. The sensation of a "ball rising in the throat"—the so-called *globus hystericus* which is so common in hysterical subjects—is probably due to a spasm of the œsophagus and pharynx. Globus, you will observe, very rarely occurs with a clean tongue, and the subjects of it not unfrequently bear evidence of subacute gastritis. It is, I believe, very often a reflex phenomenon, caused by gastric irritation, reacting upon a highly nervous, hysterical constitution, and if you want to cure it you must always attend to the state of the digestive organs. A similar spasmodic condition is brought about during emotional states, and causes the well-known sensation of "choking." There is apparently some evidence for admitting that spasmodic contraction of the œsophagus is one of the causes of "stricture" of that organ.

Dysphagia arising from pain is met with very often. It occurs during all acute inflammatory conditions of the fauces, tonsils, and pharynx. Chronic ulcerations of these parts may also bring about a like result. When inflammation and ulceration attacks the posterior part of the larynx, especially when there is great "pyriform swelling" of the posterior part of the aryteno-epiglottic folds, accompanied by ulceration, as very frequently is the case in tubercular laryngitis or laryngeal phthisis, great pain in swallowing, and consequent dysphagia, is very common. Pain in swallowing, accompanied by hoarseness, should always make one suspect laryngeal phthisis, although a certain diagnosis is not to be made without the use of the laryngoscope and a careful

examination of the lungs. An enlarged and ulcerated epiglottis, no matter from what cause—tubercular, syphilitic, or cancerous,—often produces great pain in swallowing.

Dysphagia from mechanical obstruction in the throat is common, and amongst the causes of this condition I may enumerate—1. Inflammatory swelling of the fauces, tonsils, or pharynx. 2. Organic stricture due to cicatricial contraction following upon ulcerations produced by corrosive substances or syphilis. 3. Neoplasms of the œsophagus or pharynx, whether malignant or benign. 4. Abscesses encroaching upon and narrowing the calibre of the œsophagus. 5. Tumours of the neck, of any kind, pressing upon the œsophagus. 6. Tumours of the mediastinum pressing upon the œsophagus, including aneurisms of the aorta. 7. Among other causes are pericarditis, accompanied by great effusion, exostoses from the vertebræ, fracture of the hyoid bone, and carcinoma of the lungs or pleura.

It now remains to say a few words of the physical signs of the outside of the throat, from the angle and ramus of the jaw to the clavicular arch.

Enlargement of the lymphatic glands is one of the most common signs of disease here. Enlargement of these glands is brought about by any irritation of the region whence the lymphatics come which run into them; and sometimes, when no local cause for their enlargement is detectable, it is ascribed to a scrofulous habit. I would warn you, however, that even in scrofulous subjects there is generally to be found some cause for the enlargement of any special set of glands.

When the glands at the back of the head, behind the ears, and in the occipital region are enlarged, it often indicates some irritation of the hairy scalp, as from eczema or pediculi, and no practical man finding enlarged glands in the regions indicated would fail to suspect pediculi. The glands here are often hard and shotty in the early stages of syphilitic disease. The glands at the angle of the jaw may be enlarged from inflammatory or other trouble in the pharynx, tonsils, nasal cavity, tongue, ear, and mastoid cells. Enlarged glands beneath the jaw are often caused by decayed teeth. Irritative conditions of the larynx itself cause enlargement of the bronchial glands. In mumps the parotid glands are swollen, and cause globular swellings on either side of the face. The "socia parotidis"—the little piece of the gland which projects forward over the ramus of the jaw—is enlarged, and this fact is often of value in arriving at a diagnosis. Occasionally we see the thyroid cartilage of the larynx too prominent. This may be, and generally is, due to the large size of the cartilage. It is well to remember that the larynx may be thrust forward by growths behind it. We have had two cases lately in the Throat Department of epithelioma of the œsophagus, in which the great prominence of the larynx was a notable feature. The thyroid body is often enormously enlarged, giving rise to what is known as bronchocele or goitre. One or both lobes of the thyroid may be affected, and the size of the tumour varies enormously. These tumours—the different varieties of which it is not necessary to discuss at present—may compress the larynx and cause dyspnœa, or they may involve the recurrent laryngeal nerves and cause laryngeal paralysis. Besides their anatomical situation, the main point in their diagnosis is the fact that they follow the movements of the larynx during swallowing. This is not the place to speak of the various tumours of the neck—simple, malignant, aneurismal, &c. That is best left to my surgical colleagues.

Palpation of the laryngeal region is often of use. The larynx may appear too fixed, and the parts to the side and behind it may appear too solid and massive. This is very often the case in malignant disease of the œsophagus. In tuberculous disease of the larynx we may find distinct tenderness on pressure over the superior cornua of the thyroid cartilage. In cases of laryngeal tumour we may occasionally feel a distinct vibratile thrill during inspiration or expiration, or both, by palpation of the thyroid cartilage. Percussion of the larynx and trachea is not of much practical value, although capable of informing us of the presence of solid matter in the larynx, or of the occlusion of its orifice. It is instructive to percuss the larynx with the nose and mouth wide open, and to hear the clear resonant note given out under these circumstances. Then close first the mouth and then the nose, and hear how the percussion note gradually becomes dull and toneless as the superior openings become completely occluded. A similar failure in tone takes place when occlusion is due to pathologic causes.

The examination of the *naso-pharyngeal cavity* can be made partly by means of direct observation through the anterior nares, and partly by employing a reflector and mirror to illuminate that part of the pharynx which extends behind the soft palate upwards to the base of the skull, and into which the posterior nares open. The ordinary reflector is very useful in inspecting the anterior nares, and in order to get a good view, the nares may be dilated by gently pressing upon the tip of the nose with the forefinger, or by inserting the common nasal speculum, or, better still, the bivalve fenestrated speculum introduced by Fraenkel. If the short hairs which grow within the margin of the nostril are found to obstruct the view, they may be removed with a pair of scissors, or smoothed down by the application of a little ordinary soap. (One may here remark that in performing laryngoscopy on persons with heavy moustachios, it is often a great help to plaster down the hair by means of a little soap, and thus make it conform to the line of the lips.) The amount which can be seen in this way varies in different individuals, according to the amount of swelling of the parts and their natural configuration. Occasionally one can see the pharyngeal wall through the anterior nares.

The inspection of the posterior nares and adjacent parts by means of the laryngoscope mirror is by no means so easy as the inspection of the larynx. The great obstacle to a good view of these parts is the soft palate, which is very apt to contract, and by impinging against the pharyngeal wall effectually prevent the inspection of the parts above it. The position of the patient, of the light and the reflector, are the same as for laryngoscopy. The tongue must be depressed on the floor of the mouth by means of a rectangular spatula, which may be held either by the patient or the observer, the former being preferable, and in many cases necessary, as the observer often needs both his hands. The mirror, which should form a very obtuse angle with its handle, must be gently passed (the reflecting surface being, of course, turned upwards) to the back of the mouth, care being taken not to touch the pharyngeal wall or the uvula. It is often a good plan to pass the mirror to one side of the uvula in order to avoid it. In very favourable cases we shall be thus enabled to see, by moving the mirror first to one side and then to the other side of the uvula and varying its degree of obliquity, the whole of the upper pharyngeal cavity and the posterior nares. The parts which we can actually distinguish are (1) the septum narium, (2) the middle and lower turbinated bones in part, (3) the pharyngeal orifice of the Eustachian tube, and (4) the mucous membrane of the upper part of the pharyngeal cavity, rendered uneven by the adenoid tissue beneath it. These parts can only be seen piecemeal, and a great deal of skill and practice is necessary in order to recognise them. The greatest difficulty is generally experienced with the soft palate. The sucking of ice and the administration of potassium bromide may do much to diminish its irritability, and by practice the patient may acquire the habit of allowing his soft palate to be manipulated. Some help may be obtained by making the patient utter a nasal sound during the whole examination, so that the palate is kept free from the pharynx, and if this fails the palate may be drawn forward by means of a thin silvered spatula passed behind it, or a loop of thread passed round the uvula. Palpation is of great use in examining these parts. A probe passed through the anterior nares will often serve to detect pieces of necrosed and carious bone, and a probe or the forefinger passed through the mouth behind the soft palate will often give very valuable information as to the swelling and consistency of the parts examined. One finger may be passed through the mouth into the fauces, while a finger of the other hand is applied externally in the neighbourhood of the angle of the jaw. In this way a very good idea is obtained of any inflammatory exudation or thickening which may exist in the pharyngeal wall or the fauces.

The nasal passage may become occluded from various causes, and when this is the case the following symptoms are presented to us as detailed by Fraenkel:—1. The mouth is kept habitually open for breathing purposes both during the day and the night. The tongue gets dry from exposure, and the patient has a vacant silly look; the breath, owing to one channel being stopped, is drawn in with great violence. It is stated that children are liable to spasmodic asthmatic attacks, due, it is supposed, to the contact of air with the lungs which has not been warmed by passing through the nasal cavity; and it may here be mentioned

that adults who have nasal polypi have occasionally suffered from asthma, but whether this is due to obstruction or to some reflex irritation is doubtful. 2. When the occlusion of the nose occurs in infants, they are unable to suck for more than a few moments at a time, owing to the constant necessity of opening the mouth. 3. The sense of smell is abolished or blunted, owing to the impossibility of effective sniffing. 4. Expiration through the nostrils is impossible, and the flame of a candle cannot be blown out when the mouth is shut, neither can the nose be "blown" so as to expel accumulated mucus, &c. By holding a candle to the nose, and asking the patient to expire through the nose, we can tell which nostril is occluded when only one is thus affected. 5. The voice is altered; all nasal resonance is abolished; the tone is muffled. This mode of speech is often erroneously spoken of as "speaking through the nose."

The chief morbid conditions which may be seen by inspection of the naso-pharynx, and which may, among other symptoms, give rise to occlusion of one or both nostrils, are: 1. Catarrhal swelling of the mucous membrane, as is so commonly seen in an ordinary cold. This catarrhal swelling, it must be remembered, occurs also in epidemic influenza, measles, and some other conditions. The secretion of the mucous membrane in this condition, varying as it does from a clear, almost limpid fluid to a thick, tenacious muco-pus, is too well known to need description. Occasionally the nose becomes the seat of a true purulent inflammation. 2. In scrofulous and syphilitic subjects nasal catarrhs are apt to become chronic; the mucous membrane generally becomes thickened and hypertrophied, or atrophied and shiny, and the secretion is apt to form crusts which stink and give rise to the name of *ozæna*, by which this condition is often known. 3. Abscesses of the mucous membrane occur occasionally independently of disease of the bones of the nasal cavity. 4. Syphilis very commonly attacks the nose. The presence of mucous tubercles gives rise to the "snuffles," so commonly met with in syphilitic children. Syphilitic ulcerations and infiltrations are met with here as well as elsewhere, and these conditions often lead to destruction of the cartilages, caries and necrosis of the bones, and the consequent establishment of communications between the two nostrils, or between the cavities of the nose and mouth. 5. Among the rarer causes of nasal inflammation we may mention diphtheria, erysipelas, scarlet fever, and glanders. 6. Mucous polypi may grow from any part of the nasal cavity, and vary, as you know, very greatly in size. They are usually diagnosed without difficulty, although it is well to bear in mind that other varieties of tumours, such as carcinomata and sarcomata, are found in the neighbourhood. It is well to remind you also that a hernia cerebri projecting into the nasal cavity through a congenital fissure in the base of the skull has been mistaken for a polypus. 7. It is only necessary to mention the fact that foreign bodies, such as peas and lumbrici, are occasionally found in the nose.

A very common symptom of disease of the naso-pharynx is impairment of hearing, owing to the mechanical occlusion of the Eustachian tubes. When a patient complains of being deaf, you should always examine the pharynx.

INSANITY; ITS TREATMENT AND PREVENTION.

The Presidential Address for 1880 of the Border Branch of the British Medical Association.

BY J. A. CAMPBELL, M.D., F.R.S. EDIN.,
MEDICAL SUPERINTENDENT, GARLANDS ASYLUM, CARLISLE.

(Concluded from p. 339.)

IN talking over the matter of the causation of insanity with members of the profession in asylum practice, I have always strongly expressed my disbelief in purely mental causes having an influence to the extent generally supposed in producing this disease, and I have been frequently answered that my views arose from my principally dealing with cases in the less educated grades of society, and that among the educated and in the higher ranks purely mental causes were far more common. I still, however, adhere to my views, and think that cases are frequently supposed to be caused by extra study, mental anxiety, overwork, religious doubts, when, in reality, other agencies, habits, and vices have been the real cause of all the mischief.

I have already placed before you the difficulties one experiences in arriving with anything like absolute certainty at the cause of disease. In several cases of clergymen, clerks, travellers, &c., I have, on careful examination, found that where all at first pointed to a mental causation, fuller inquiry showed a physical. I am quite aware that a few general remarks or isolated cases go for nothing in dealing with such a subject. I therefore submit the following.

I have most carefully examined into the causation of the cases sent to Garlands Asylum during the past two years. In this period 238 patients were admitted: in 153 the malady was distinctly due to physical causes; in 36 only to moral causes. I have already pointed out that exception might be taken to results arrived at in an asylum whose population is principally derived from an agricultural, or at any rate a manual, self-supporting source. Let us, then, look for a moment at a likely cause of insanity—mental shock or worry from money losses. One would imagine that few things could have a more deleterious effect on the human mind than losses which keep one tottering on the brink, or that cause distinct and total ruin at once. Thrilling tales are founded on such occurrences, and our profession occasionally record wonderful cases, the result of unexpected and sudden ruin or reverses in fortune, cases of death from shock, insanity, paralysis, sudden ageing, change in colour of hair, &c. Now one of the greatest commercial casualties which of late years has affected Scotland occurred by the stoppage of the City of Glasgow Bank on the 2nd of October, 1878. This failure caused very great distress to many, ruin to some, and most undoubtedly anxiety of a severe nature to all concerned with it directly, and to many others indirectly. From the report of the liquidators,[1] I find that there were 1093 shareholders in their own rights, 100 life renters, 192 bodies of trustees, 108 persons whose wives held stock, 34 shareholders as trustees; the total number of separate persons entered on the list was 1819; 599 surrendered their estates, unable to pay the first call made upon them; 354 who met the first call were unable to pay the second. I made an inquiry from the medical officers of seven royal asylums, two private, ten district, and two parochial, to find out how many patients up to the time of my inquiry (April, 1880) had been sent to asylums from this cause. I found that six patients were admitted in whom the disease was considered to be directly caused by this bank failure, while in two it was considered the indirect cause. In Garlands, in 1879, seventeen cases were sent in from excessive drinking, and these from two counties in one year. I do not for one moment doubt that many cases have been evilly acted upon by this failure; probably cases of insanity have occurred which did not require asylum treatment. I am only dealing with this failure as a factor in causing insanity, which required asylum treatment; and the result of my inquiry shows that a bank failure of a magnitude which allows one to call it a national calamity, which directly affected 1819 persons—and who knows how many indirectly?—which must have produced an appalling amount of mental shock, an immeasurable amount of anxiety and worry, and an as yet unknown amount of hardship, only sent eight persons to the twenty-one principal Scotch asylums. This should lighten the minds of directors.

During 1876 and 1878 the Commissioners in Lunacy, with the co-operation of the medical officers of asylums, collected and tabulated certain data, among others the causes of the insanity (arrived at after careful scrutiny and consideration of each case individually on the part of the asylum medical officers), with regard to the admissions which took place into English asylums. I consider that the return for 1878 is the most accurate of the sort that we have ever had access to, and I therefore refer to it. 13,309 were admitted into English asylums during 1878. Moral causes as the excitant or predisposer were considered to have caused insanity in 3199 cases; domestic trouble, adverse circumstances, mental anxiety, overwork, religious excitement, love affairs, fright, and nervous shock—24 per cent. of the admissions only were caused by such agencies as I have mentioned acting directly on the mind.

When we turn to the physical causes we find 6418 cases accounted for by them, 48 per cent. of the whole admissions being attributable to direct physical causes, such as intemperance in drink, or sexual and venereal disease.

[1] I have to thank one of the liquidators for kindly furnishing me with their report.

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No doubt some of the physical causes are distinctly non-preventable, such as old age; but many of them are, and it is satisfactory to have something tangible, recognisable, curable, and preventable to go on. Taking intemperance in drink, it is put down as the exciting cause of insanity in 1351 of the admissions, the predisposing in 415—altogether it is credited with causing 14·6 per cent. of the whole admissions. Lactation as a predisposing cause affected 15, as an exciting 101; it caused 1·9, nearly 2 per cent., of all the female admissions.

Education, elevation of the mental faculties, a diffusion of knowledge as to the requirements of the bodily health, an acquirement of desires for rational amusements and intellectual relaxations, among the mass, have for long been pointed out as the preventive for insanity caused by giving rein to the baser passions and appetites. As this is long in coming, we must look for, hope for, urge as far as we can, and point out, as we as a profession have done, and are constantly doing, stringent and easily enforced legislation which will deal with habitual drunkenness, prevent the adulteration of malt and spirituous liquors, and the sale of newly made spirits which contain constituents especially deleterious to brain-tissue. Such legislation must be enforced to be of value; permissive legislation on such a subject is valueless.

Are doctors sufficiently consulted by heads of families either as regards bodily or mental health—in fact, as regards the prevention of disease in their offspring? Are they not in the majority of cases merely called in to attempt to cure a disease which has been long going on, and which might have been prevented?

With regard to children, I believe medical men are now more consulted than they used to be about their proper nutrition in infancy and childhood; but is sufficient attention paid to their education, recreations, the choice of a profession, the capacity of the mind for severe mental toil, the question of bodily disease, its development under certain conditions and in certain occupations, and its power of being retarded or prevented by constant attention to bodily health and freedom from mental strain? Are such subjects properly present before the minds of parents, guardians, and the medical profession at large? This is a difficult subject, and each year it is becoming more and more pressing; and when we look at the causation of many cases of mental disease we have the conviction forced upon us that had such and such a case been in different circumstances, it would have been most unlikely that he would have become insane.

Then, leaving the period of childhood and coming to that of youth and budding manhood and womanhood, should not the primary laws of physiology be taught? Would it not be well for those who hope to live for the allotted span in this world to know how they live, and how best to live to keep living? and some truths, of course in a guarded way, should be communicated to them by their elders about their reproductive systems, which to many, especially those of a neurotic family, is the cause of many uneasy feelings, wonderments, and doubts. From my experience, I am quite sure that in many individuals of both sexes evil practices and habits have often arisen in ignorance—habits such as masturbation, with its train of evil consequences to mind and body, excitement, vacillation, depraved inclinations of all sorts, in the male; and similar, if less marked, mental changes, with hysteria predominating, in the female, an unhappy ruined life and weakened body, at the slightest, and in extreme cases existence in an asylum, a trouble and a care to all, for in such cases, at their worst, impulsiveness is a prominent feature, and dangerous outbreaks of short, almost momentary duration alternate with depression. Such persons are usually filthy in their habits, and nearly always end in complete dementia, frequently run their bodily health down to the lowest ebb, and die of phthisis.

Then, passing onwards, is marriage at present looked upon in its proper light? Are the prospects of a healthy progeny considered? Wealth, social position, even creed, are duly thought of—why not mental and physical properties? Each year one hears of marriages broken off for monetary or social reasons, but is the family history of the young couple ever considered—the great probabilities of disease in one or both, the family home broken up by puerperal mania, the children descended from two insane or phthisically-inclined parents, causing anxiety, discomfort, grief, and useless regret, instead of happiness, bright anticipations, and increase of love; and when, by eating the fruit, the knowledge is gained to see that all this could have been prevented, that knowledge acquired in time might have enabled one to guide their selection, and to influence their love, as well in matters of this sort as in those of monetary and social consequence.

It would almost seem as if there was an elective affinity between persons with a neurotic taint, especially those descended from suicidally disposed ancestors. I have often been led to notice how frequently they intermarry. They are often in the blush of youth well-developed and good-looking, arrive more quickly at maturity than their more healthily constituted compeers, have more adaptation of character, are more subject to the emotions, and probably being more deficient in the sterling qualities required in life's journey, yield themselves with more *abandon* to the pleasures of the moment, without a care for the morrow. I think that in this probably lies the fascination often noticed in such cases as I describe. But while the state I have presented occurs in some instances, and at the early periods of life, there is another side to be heard, and even the individuals who while they are young present cheerful aspects often get morbidly dull in the middle and later periods of life. There are many neurotically descended who feel their burden from the first, and feel it more so from their surroundings. To be descended from insane or even peculiar and eccentric ancestors is a great hardship, but to have to live with them and be surrounded with a large circle of similarly constituted relatives is nearly as bad, and undoubtedly has a bad influence on the young. That people unintentionally acquire peculiarities from associates is well known; that a dread of an outbreak of nervous disease is often present in the minds of those who inherit strong neurotic taint is also well known; and that this dread may be almost extinguished, or kept constantly on the alert by the surroundings, stands to reason. Persons with strong neurotic taint should, for their own safety and happiness, live as much as they can amongst healthily constituted strangers. They should, as far as possible, keep clear of the associations which constantly bring their unpleasant inheritance before them prominently. In many cases a change of county, or even of country, is really a great safeguard. This should be known.

Only when such evils take place as puerperal mania is the advice of the medical man asked for or listened to as to the probability of a recurrence of the malady at the next confinement, or as to the time which ought to be allowed to elapse before the woman is again subjected to the dangers of another attack. After a severe attack of puerperal insanity the nervous system must take a long time to recover thoroughly; and though the patient may ostensibly be well, and not need asylum or other treatment, yet I believe that a considerable period without any extra calls on the system generally is necessary for total and complete recovery. I always tell husbands my views in this respect when I discharge patients who have recovered from puerperal mania, and advise for their own comfort that a year should elapse before another pregnancy; but usually such advice is unattended to, and a quickly following confinement brings a recurrence of the insanity. The most marked case that has lately come under my notice was E. J——. Father drowned himself. She had been always rather nervous. Came in on May 15th, 1877, labouring under puerperal mania. This was two weeks after confinement. She was excited for a long time, but gradually got better, and was discharged on March 11th, 1878. I expressed myself strongly to the husband, pointing out that in this case, from the family history, it was even more essential than in ordinary cases that a considerable interval should elapse before the next confinement. This patient was readmitted, pregnant, on Sept. 21st, 1878. She continued in a state of excitement during her pregnancy, and was confined of an apparently healthy male child on Dec. 15th, 1878, 288 days from her discharge, so that she probably became pregnant within eight days of leaving. She is still in the asylum, an excited, hysterical female, at present entirely devoid of self-control. Had she not become pregnant, I think that in all probability she would have retained her reason.

In nearly all the cases of insanity from over-nursing that come under my observation the patient has been nursing up to the time of being brought to the asylum. In the majority of cases, after the milk has been got rid of by rubbing the breasts with a saturated solution of extract of belladonna in glycerine and the administration of a saline aperient, and the patient afterwards treated with iron and tonics, recovery is very speedy, if the patients were warned about such an

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occurrence as nursing proving too much for them, if the too great drain on the system were prevented by partially feeding the child or entirely ceasing nursing when the bodily health was seen to suffer and the patient was becoming dull, the attack might be averted. I have always thought that medical advice was too tardily sought in such cases.

The time between gestations, even when not followed by immediate insanity, does not meet with the consideration it merits. I frequently see cases of mental disease, in many complicated with phthisis, in which numerous and rapidly following pregnancies have undoubtedly been the cause; and in a considerable number of cases of middle-aged and oldish women, with lowered vitality, broken-down constitutions, absence of nervous power, and consequent dementia or melancholia, I have, on scrutiny, clearly realised that unduly rapid pregnancies or miscarriages have been the cause of such a state. And yet in cattle this is avoided; a breeder of good stock, always after a miscarriage, does not allow another pregnancy till the time he would have done so had the female gone the full time.

That fright, nervous shock, illnesses, and mental anxieties exercise in some manner a direct influence on the unborn offspring through the mother is well understood. Maternal influences during the period of gestation is the one subject of this class which has received most attention, and great care is usually expended on the interesting patient. Probably the laws of some of the nations who did away with weakly offspring gave the initial impetus to this attention, but I doubt whether much family happiness would not result by attention to the life, health, and habits of would-be parents during the period immediately preceding gestation. It is well known that frequently children procreated during alcoholic excess are imbecile or hydrocephalic. Deviations from health, both mental and physical, may be a question of degree. One frequently sees the children of intemperate parents stupid, dull, and coarsely formed. I have no doubt the mental state of the parents during the period immediately preceding procreation has a great influence on the future child. I should like to hear, as some day we shall, something as to the effects of the siege of Paris and the Franco-German war on the children procreated in Paris during that eventful period. In Jewish history newly married men were exempt from martial service.

I trust that the portion of my address which deals with the treatment of insanity will convince you that practitioners in this department, as in the others of our profession, have at heart not only the good treatment of the patients, but also the advancement of our knowledge of the subject.

As regards the prevention of insanity, all our profession are interested in it. I have brought before you the thoughts which have occurred to my mind as worthy of your consideration. Ours is a progressive study; it should end only with our lives. As each year rolls past we should have observed some new facts, made ourselves more acquainted with the wonderful laws of nature which have specially to deal with humanity, and fitted ourselves to advise with such certainty as is to be expected from fallible man on many of the points upon which I have touched, for each year more will be expected from us in this direction.

HUMAN AND ANIMAL VARIOLÆ: A STUDY IN COMPARATIVE PATHOLOGY.

BY GEORGE FLEMING, F.R.C.V.S.,
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(Continued from vol. i., page 858.)

I HAVE already alluded to the results of small-pox inoculations on the horse, and shown that, as on the ox, they were either negative or nearly so, the positive results yielding only the most trifling evidence of infection, and nothing at all like horse-pox being ever produced from the insertion of the small-pox virus into the skin of the horse, while retransmission to mankind only gave rise to small-pox. On the contrary, as we have seen, horse-pox inoculated on the cow produces what in every way corresponds to cow-pox, or on man to vaccinia. From the cow and man horse-pox can be transmitted indefinitely, and while its action is modified by repeated transmissions, its protective influence against variola is undiminished. This has been demonstrated times almost without number, from the days of Jenner up to the present date. The most interesting and instructive of recent demonstrations in this direction is that recorded by Dr. Pingaud, in a communication presented to the Paris Academy of Medicine a few months ago. Having observed, with Drs. Viseux and Thomas, an epizooty of horse-pox in February, 1879, he determined to make some experiments, and selected as a vacciniferous subject a four-year-old horse affected with the disease, but whose antecedents were well known, and whose health at other times was excellent. The cutaneous eruption was discrete; there were only a few crusts of pustules about the hollow of the pasterns; but in the mouth, and within the upper lip, the mucous membrane was studded with vesicles offering the characteristic nacrous aspect. Lymph was collected from these pustules with the greatest care, and seven young soldiers of the 10th Hussars, who had not been vaccinated, were inoculated. On the sixth day six of the men showed at the seat of inoculation the characteristic vaccine vesicles, which had a somewhat inflamed base. From four of the soldiers lymph was taken; with this sixty-four men —eight of whom had not been vaccinated—were inoculated. In forty of these the result was positive—60 per cent. successful vaccinations. With none of the patients were there any serious inflammatory symptoms, and only in a very small number did the inoculations assume a furunculous aspect. Calves were inoculated from the horse, but the proportion of successes was only 48 per cent., rather going to prove that the virus became weakened in the calves.

I have stated that horse-pox and cow-pox are almost, if not quite identical in their effects, when transmitted by inoculation to man, the ox, or the horse. Chauveau inoculated five horses and two asses with animal vaccine from Naples; the youngest animal was seven years old, the others from sixteen to twenty years of age. For five and six days there were no signs, but in from five to eight days the seat of puncture became markedly papulous, the papules increasing in size until about the tenth day, when they were acuminated, had a very broad base, and were red, painful, and hard. From the ninth to the twelfth day was the period of secretion, the epidermis becoming slightly raised throughout the whole extent of the papule by an exudation of limpid citron-coloured serum; this dried into yellowish transparent crusts, very different in appearance from those of vaccinia in man or cow. The secretion from the lymph continued for several days, and ceased from the thirteenth to the seventeenth day. When the crust was removed there appeared a moist granular red surface level with the skin, but having a deep central cavity, a kind of umbilicus, in which had been fixed, like the head of a nail, the prominent under-surface of the crust. There was no febrile reaction. In the asses there was shedding of the hair and epidermis in various parts, with abundant serous exudation. As compared with its evolution in man and the cow, the vesicle or pustule was slower, and there was a difference in its shape and character, the pustule being acuminated, the lymph scanty, and the umbilicus small or altogether absent; though in an ass sixteen years old the pustule had from the commencement a central umbilicus. In the horse the crust extends over all the pustule, while in man and the cow only the centre is covered. In the ox the lymph is rarely abundant, and there is never anything more than a thin brown crust; but in the horse the crust is wide, thick, rough on the surface, and transparent and citrine-tinted.

SHEEP-POX.

Sheep-pox differs from cow- and horse-pox in having a history extending over some centuries, and in being closely allied to small-pox in its extension, this depending not only on its contagious but also on its infectious properties, and the eruption being more or less general over the body. Indeed, so far as intensity of virulence is concerned, its appearing in an epizootic form, as well as the serious symptoms and mortality accompanying sheep-pox, there is the closest resemblance between it and human variola. We have seen that cow-pox and horse-pox are far from being serious disorders, the affected animals, in the majority of instances, being

very little, if at all, disturbed in health, while the diseases are not infectious, and not always very contagious.[1]

In the first portion of this paper I alluded to sheep-pox being mentioned at the Vaccination Conference, and observed that it was there admitted that the sheep had a variola of its own. On again looking over the report of that meeting, it appears doubtful whether the speaker who referred to it thought it was peculiar to the sheep, or whether it was not also derived from human variola. The best proof that it has no relation whatever to small-pox is to be found in the fact that it prevails continuously, and sometimes most extensively and fatally, in countries where small-pox is extremely rare, as in East Prussia; and in regions where the latter is never absent, and is often epidemic, sheep-pox is only known as an imported disease. In England it is never seen unless introduced from countries where it is enzootic. The terrible outbreak which ravaged our flocks in A.D. 1276, and continued twenty-eight years, was due to importation from France; and the appearance of the disease in 1847 and 1862 was due to foreign sheep. It has been unknown in the country since the latter date.

Notwithstanding the close resemblance of sheep-pox to small-pox (the pustules in the former being, however, acuminated, the course of the malady very similar, the complications the same, and the mortality as great), yet the one disease has no influence either in the production of or protection from the other. It appears to be finally established that human variola will no more produce sheep-pox than it will cow-pox, notwithstanding the close affinity between the two; and while variolation will not protect from sheep-pox, neither will inoculation with the virus of the latter prevent mankind having small-pox. Some authorities have denied that ovine variola can be transmitted to the human species, and the extreme rarity of cases of supposed accidental transmission certainly gives countenance to the opinion. But several instances are recorded, nevertheless, of veterinary surgeons, who have been accidentally inoculated with the virus, suffering from local and general disturbance, like that produced by vaccination.[2] Korner[3] reports that a child who tended (barefoot) sheep affected with variola, had a number of discrete and confluent pocks on both feet. This transmission occurred also to one of Korner's own children. On the back of the boy was developed a pock, which finally became as large as a five-pfening piece; there was severe concomitant fever. The child appears to have been inoculated while Korner was charging some capillary tubes with sheep-pox lymph from a pipette, a drop of the fluid, it is supposed, having fallen on him.

Röll has unsuccessfully attempted to inoculate cattle with sheep-pox, and sheep with cow-pox; but Zundel[4] has given an instance in which two cows were directly infected through cohabitation with diseased sheep. Haubner mentions that inoculation with small-pox matter has sometimes produced pustules on the dog and pig; but reinoculation from these did not cause the malady in sheep. Hertwig and Hering assert that the malady is readily communicated to goats in a true form, and may be transmitted from them to sheep. In the goat the pustules are usually smaller, and the general disturbance is less marked. But transmission is very far indeed from certain, as goats very often associate with sheep without becoming affected. Hering knew of an instance in which fifty-four goats grazed with diseased sheep, and only ten became sick. According to Kersten and Gerlach, reciprocal inoculation of goats and sheep is always successful; and according to the observations and experiments of Gasparin, Dominick, Curds, and Spinola, and, still more recently, Gerlach, there appears to be a close identity between the variola of hares and rabbits and that of sheep, inoculations from one species to the other always yielding positive results.

When vaccination as a protection from small-pox began to gain ground as its benefits were becoming more and more evident, many of the leading veterinarians on the Continent tried it as a protective against sheep-pox, but they soon discovered that vaccinated sheep were as susceptible to their own particular variola as the unvaccinated. Verrier, Gohier, Husson, Voison, and other veterinary surgeons, found that, no matter how successful the vaccinations had apparently been, the sheep took the disease, either accidentally or experimentally, as readily as before. For this reason vaccination is never attempted now, as it does not confer immunity from sheep-pox—a curious circumstance with regard to intervariolation among different species of animals.

The contagium of sheep-pox is very active, as has been already stated. The observations and calculations of Chauveau with regard to the infectiousness of the malady, compared with that of vaccinia, tend to prove that animals attacked with sheep-pox will infect a hundred times more readily than those affected with cow-pox. The sheep-pox lymph also, according to the same authority, contains in an equal volume and weight a much more considerable number of virulent corpuscles, and is much more potent than that of vaccinia. He has shown that if the latter is diluted with fifty times its weight of water, inoculation with it is uncertain in its result, while the sheep-pox matter may be diluted with 1500 times its volume of water before it is reduced to the same condition. He has also demonstrated that the activity of this matter, like that of every other virulent substance, resides in the solid particles or elementary corpuscles held in suspension in the serum, which is not viruliferous; and that an equal quantity of sheep-pox lymph contains thirty times more of these particles than that of vaccinia.

(To be continued.)

[1] Depaul believed horse-pox to be infectious, and cites, in support of his opinion, an instance in which a cow was inoculated with the lymph from the nostril of a horse, when seventeen other cows inhabiting the same shed were soon after infected, cow-pox pustules appearing on the udder and teats. In addition, a horse kept in a badly-constructed box in this stable, and breathing the same atmosphere as the cows, was also affected, the eruption showing itself on different parts of its body. It is not at all improbable, however, that the cow-keeper and his assistants, who handled the diseased and healthy animals alike, were the chief agents in spreading the malady. Indeed, the wife of the cow-keeper, in milking the cows, was vaccinated on one of her fingers, and yet continued to handle the teats of the others, notwithstanding the pain she experienced. Bouley has had perfectly healthy horses and cows cohabit with diseased horses, and when the malady was produced in them he was always able to trace it to direct contact. During the epizooty at Alfort, in 1863, it was possible to transmit the horse-pox to a series of horses by placing them one after another in a stall which had been occupied by a diseased horse. Each animal became affected in turn, and at times its immediate neighbours also; but beyond these in that stable there were no further transmissions, all the other horses remaining unaffected. As Bouley justly remarked, a really infectious disease does not comport itself in this manner. Veterinary Surgeons Turenne and Mathieu have also experimentally demonstrated that horse-pox is not infectious, and this is in accord with my own experience.

[2] See Medizin. Jahrbuch des Oesterreich. Staates; also Mittheilungen aus der Thierärztlichen Praxis in Preussen., Jahrgang 17; and Magazin für die gesammte Thierheilkunde, 1873, p. 407.

[3] Mittheilungen aus der Thierarzteichen Praxis im Preussichen Staate für 1876-77 und 1877-78.

[4] Journal de Méd. Vétérinaire de Lyon, 1867, p. 185.

ENDOCARDITIS FROM VERY SLIGHT RHEUMATISM.

BY CLEMENT DUKES, M.D. LOND.,
PHYSICIAN TO RUGBY SCHOOL.

I HAVE found mitral disease so often in healthy young persons, where there has been no history of rheumatic fever to account for it, that I have been at a loss to know how it has taken place, especially as it has occurred in those not accustomed to take violent exercise,[1] and who are thus not likely to have over-distension of the heart and orifices, or injured valves.

Visiting, as I do, daily 400 boys, among whom the slightest deviation from health is referred to me, I am able to see the beginnings of illnesses. The following case may be instructive.

On Feb. 17th, 1880, I saw Mr. H——, who complained of aching down the front of the thighs and slight pain across the loins; his pulse was quickened, and his skin hot. Thinking he had got wet, and so chilled, I sent him to the sanatorium to give him a hot bath, and put him to bed for twenty-four hours, in the hope that he would be quite well then. At night his temperature was 101·6° F., and pulse over 100.

Feb. 18th.—His aching in the thighs had gone; the loin pain, though still present, was better; temperature 99·2°, and pulse 100. He passed a comfortable day, and the only discomfort was the slight pain across the loins, but his evening temperature was 102°, and pulse over 100. I examined him most carefully, but could detect nothing more, and he had no albuminuria.

19th.—Temperature 100°, and pulse 100; but he said he

[1] Vide British Medical Journal, March 15th, 1879.

felt perfectly well. On the most careful examination I could find nothing else.

20th.—The same; but the boy could not understand being kept in bed when he felt perfectly well, and I could not sanction his getting up while his temperature and pulse were above normal.

21st.—After another careful and minute examination, owing to his temperature and pulse remaining the same, I detected a very soft and faint mitral systolic murmur.

This gradually increased in intensity every day, and on the 24th his temperature became normal, and continued so, but his pulse remained high for a time. He was kept quietly in bed for another ten days.

I carefully talked over the illness with his father, and told him he had endocarditis, which was a very serious matter; though by dint of the very greatest care, in not allowing any exertion for the next few months, its effects might all disappear; otherwise he would carry a maimed heart for the rest of his days.

On March 8th he was unfortunately suddenly told he might go home for the rest of the term. Next morning when I saw him I was informed that he had been in a curious state, talking incoherently about things that had no existence at all, and he seemed thoroughly dazed at my visit. He was cheerful and happy, though incoherent, and had a quiet pulse. Whether his joy was too much for his state, or whether minute particles of fibrine were liberated from the mitral valve in the excitement of his sudden joy at the idea of going home, I cannot say; but I am inclined to think that this latter is what happened.

On June 11th I auscultated his heart, and there was not the slightest trace of murmur remaining. He was quite well.

The lessons to be learnt from the case, I think, are—1. That the most trivial amount of rheumatism may be accompanied by endocarditis. 2. That recent murmurs from endocarditis may and do disappear in young healthy subjects by dint of very great care while they are recent.

Rugby.

A CASE OF SUDDEN DEATH DURING ETHER ADMINISTRATION.

By ROBERT N. HARTLEY, M.R.C.S.

THE rarity of cases of sudden death during the use of ether as an anæsthetic is my excuse for entering somewhat fully into the following details.

The patient was a gentleman, aged sixty-six, who had for some weeks previously been the subject of symptoms which eventually culminated in complete obstruction of the bowels, the site of the obstruction being thought to be either in the lower part of the descending colon or the sigmoid flexure.

As the only procedure holding out any hope of prolonging life, it was decided, in accordance with the opinion of Sir James Paget and Mr. Pridgin Teale, and with the full consent of the patient, to open the bowel in the right lumbar region.

Before the commencement of the operation the patient was lying, or half-lying, in bed, with the head and shoulders well propped up with pillows, breathing regularly and without great effort. There was no complicating disease in heart or lungs, and the pulse, though rather quick and small, was not inordinately feeble. There was thus nothing to contra-indicate the use of an anæsthetic, or to make one more than usually anxious as to its effect. Some artificial teeth worn by the patient had been previously taken out, and one of the pillows was now removed for the more easy adjustment of the inhaler.

Ether was administered by Clover's smaller inhaler, two ounces being the quantity contained in the ether-chamber. The patient took the ether without the slightest hesitation or resistance, moderately inflating the india-rubber bag with each expiration, and in two minutes was quite anæsthetic. He was now placed on his left side with the head lower, and in five minutes from the commencement of the administration of ether the line of incision was made by Mr. Teale. The patient was never allowed to become deeply "carbonised," and the inhaler was frequently withdrawn entirely. In ten minutes from the commencement of the operation, and just as I was engaged in counting the carotid pulse, which was beating evenly and with a rather stronger impulse than before the operation, he showed an inclination to vomit, and ejected a quantity of brownish fluid smelling strongly of brandy. He then took one deep inspiration, and seemed as if inclined to vomit again; but his head sank back on the pillow, and he quietly died, making no further respiratory effort, except one short gasp during the performance of artificial respiration. Prompt exploration of the fauces failed to show any mechanical obstruction to the breathing, and in spite of an immediate resort to artificial respiration and all other available means for restoring animation, our efforts proved useless. An examination of the inhaler showed that a little more than an ounce of ether had been spent.

No post-mortem examination was made.

The interest of this case centres in the difficulty of defining the exact cause of death. The mode of death is one which unfortunately is not rare during the use of *chloroform* as an anæsthetic, but is almost unknown while a patient is under *ether*.

There was no mechanical obstacle to respiration by the regurgitation of anything into the larynx during the act of vomiting. Nothing solid had been introduced into the stomach for seven or eight days previous to the operation, and the vomited material consisted entirely of thin fluid. Moreover, there was no paroxysmal or convulsive seizure such as would be likely to follow a sudden mechanical interference with the act of breathing.

Two circumstances may have contributed to the suddenly fatal result:—

First, the distension of the bowels possibly interfering to some extent with the descent of the diaphragm, and hence with easy respiration, though neither before nor during the administration of ether had the patient shown any considerable difficulty or distress of breathing. Mr. Teale regrets, however, that he did not at once complete the operation, and rapidly open the bowel, and thereby reduce one factor—the distension by gas.

Secondly, the undoubted tendency to death from asthenia in cases of abdominal obstruction. In this particular case, the lungs having been more or less emptied of air by the act of vomiting, the additional quantity of blood drawn into the heart and large vessels by the next inspiratory effort might easily have brought the feebly acting heart to a standstill. Mr. Clover suggests to me that by the eructation of fluid containing brandy the ether may have been mixed with alcoholic vapour, which would add to its narcotising effect, and thereby tend to increase the cardiac depression.

Brixton-road, S.W.

ABSCESS OF THE CEREBELLUM.

By W. A. BERRIDGE, M.R.C.S., L.S.A.

I TRUST a general practitioner may be allowed to put upon record the following brief notes of a case of abscess of the cerebellum, as a small token of his gratitude for the instruction he received from Dr. J. Hughlings Jackson, F.R.S., and for the care bestowed upon his clinical education by his former teacher and now esteemed friend, Dr. Stephen Mackenzie.

A. D——, aged seventeen, had suffered from time to time since he was two years old from "gatherings in his head," which "broke," and "smelled very bad." He went to school when five years old, but never got on well. The schoolmaster said "he was stupid, and would not learn." Still he learned his letters, and could hold his own in play with other boys. He had no particular illness, never had scarlet fever, and had no signs of congenital syphilis, but often suffered from headaches and the aforesaid "gatherings."

When first seen (August, 1879) he was tall, pale, and rather thin. He spoke as I have noticed patients with organic cerebral mischief generally do, his words beginning with a "jerk" and ending with a drawl; or, in other words, the first part of a word being sharp and rather acute, the latter part grave and always prolonged. His mother said, "I have sent for you because he has a cold in his head, and cannot smell." On further inquiry, "he had headaches, occasional retchings, and felt giddy"; but he could not describe his "giddiness." He had no "reel." He ate ravenously. Urine 1015, acid, no albumen, no sugar. Temperature normal. He had no paralysis. Pupils dilated, but responded to light.

On examination with the opthalmoscope, "the edges of both discs were rather indistinct, but there was nothing definite." After some treatment he improved, and was lost sight of for several weeks. When seen again (December 1879) his smell had returned, but he had lost his sight; he was quite blind. The edges of the discs were now quite obscured, the vessels partly covered by exudation; that is to say, he had well-marked double optic neuritis. He vomited frequently, and complained of intense pain at the back of his head. He had now the three cardinal symptoms— headache, vomiting, and double optic neuritis; he had also a long history of ear-discharge; so there was no difficulty in saying he had an abscess in his brain, and that he would die, most likely suddenly.

There was no marked change, and he died quite suddenly on March 12th, 1880. Next day, assisted by my friend and partner, Mr. F. B. Hallowes, I opened the head. The convolutions were pale, and somewhat flattened. Nothing was noticed until slicing the cerebellum. There was a large abscess involving nearly the whole of the right lobe of the cerebellum, and containing about three ounces of what a surgeon would call "laudable pus." Permission could only be obtained to examine the head.

Rothill.

NOTES OF A CASE OF LYMPHADENOMA.

BY W. BERRY, M.R.C.S.E., L.R.C.P. & S. ED.
HONORARY SURGEON, ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

ON December 10th, 1879, I was asked to see Patrick O'B——, twenty-six years of age, a collier, living in a small house with deficient hygienic surroundings, and was given the following

History.—In August, 1879, he met with an accident in the coal-mine, being injured between two tubs and thrown on his back across the tram-rails. He was able, however, to walk to the surgery of the colliery doctor, who prescribed a liniment for him, which he applied. In consequence of this accident he was off work for one month; then he returned, working only one day, when he stated that he sprained his back owing to his work being heavy. He sought advice this time at the Wigan Infirmary, where he was admitted some time in September. He was discharged on the 9th of December without any improvement, feeling, if anything, weaker than when he entered.

Physical examination.—When I saw him in the evening of Dec. 10th he was lying on his back in bed, having a sallow, pasty appearance, with some puffiness underneath the eyes; respiration somewhat short and hurried; pulse 96, feeble; tongue slightly furred, with slightly raised papillæ, and dryish, although he did not complain of much thirst; bowels slightly constipated, and appetite very poor; urine moderate in quantity, of high colour, with some lithates, but no albumen; respiration somewhat puerile, probably owing to its hurried character; no dulness on percussion; heart's sounds very feeble, especially second sound, which could not be heard distinctly, but no murmur. On examining his abdomen, in left iliac region was found a round hard swelling about the size of a large orange; this tumour was immovable, and seemed to increase in size at its base. The inguinal glands and femoral glands of both sides were hard and enlarged, but not painful. He complained of pain behind the abdominal tumour in his back, and attributed all his symptoms to the accident. I did not take his temperature, but the house-surgeon of the infirmary told me that when he was in that institution he had a temperature of 103° F. His wife informed me that he was strong and healthy previous to the accident, but after his death I learned he had not been in good health for some time. The man and his friends were anxious to have all his ailments put down to his accident, so that he might receive benefit from the Permanent Relief Society; hence the difficulty in obtaining a correct history and arriving at a true diagnosis.

I prescribed a mild aperient tonic for him, and ordered plenty of milk and nourishing food.

I saw him two and three times a week, but with no marked improvement in his symptoms. The pasty, puffy appearance of his face increased, his left leg and thigh became œdematous, bed-sores commenced to form over his hip and great trochanter, and the femoral glands enlarged. His breathing got more impeded, and debility much greater.

On Jan. 7th, 1880, the glands just above the clavicle on the left side were much enlarged and almost in one mass, and the posterior triangle of the neck also contained glands enlarged in size.

No history of syphilis could be made out. I came to the conclusion that we had a case of *lymphadenoma* to deal with; through neglect, however, a microscopic examination of his blood was overlooked, but the anæmic appearance of his face was sufficient evidence of impoverished blood. He gradually got worse and died on Jan. 18th.

Through the kindness of the coroner, I got an order for a post-mortem examination, owing to the deceased's relatives seeking to obtain pay from the Permanent Relief Society. On January 20th, at 8 P.M., sixty-two hours after death, with the aid of my assistant, Dr. O'Reilly, and my pupil, Mr. Richards, I made a post-mortem. The body was emaciated, with swellings of enlarged glands in the neck, inguinal regions, and left side of abdomen, œdema of the left leg, a small bed-sore over left trochanter major, hæmostatic congestion over the buttocks and lumbar vertebræ.—Head: On removing the calvaria, the dura mater was found to be slightly adherent, the brain-surface (convolutions) pale, the arachnoid filled with serous fluid; when cut into it showed the same absence of blood; serum was also found filling both lateral ventricles.—Chest: Lungs in a state of collapse, lying at the bottom of the thorax, the pleuræ being filled with fluid. Lungs, on removal, found to be adherent in places. Heart lying flaccid in the pericardium, which contained very little fluid; on opening its cavities very little dark-coloured blood was found in them; the valves were healthy.—Abdomen: The liver was prominently in view, extending over into the left hypochondriac region, being much enlarged, but healthy in appearance when cut into. The spleen weighed about six ounces, but did not appear diseased. The stomach was distended with gas, as were also the intestines. The coats of the stomach were somewhat thinned, but not to any marked extent. The kidneys were normal in size, capsules easily removed, but the cortical portions thinned, otherwise healthy. On pulling over the small intestines and mesentery, there was found lying on the left side of the bodies of the two lower lumbar vertebræ a solid mass, firmly adherent. I removed a good portion of this tumour with the knife for subsequent examination; it was about the size of two kidneys, and was outside, but enveloped by, the peritoneum. A number of enlarged glands were found on the under surface of the mesentery, about the size of buttons, and these passed down chain-like into the pelvis, along the rectum, being larger on the left side. The glands in the femoral canal were also enlarged. The bladder was healthy.

Wigan.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WEST LONDON HOSPITAL.

A CASE OF HÆMORRHAGIC DIATHESIS; HÆMORRHAGE FROM THE MOUTH; DEATH.

(Under the care of Dr. THOROWGOOD).

FOR the following notes we are indebted to Mr. Sidney H. Lindeman, house-physician.

William A——, aged eighteen, fairly well nourished, but presenting a strumous and anæmic appearance, and who for some time past had lived badly, was admitted on July 9th, 1880. He first attended as an out-patient on July 8th, and stated that on July 4th about 3 A.M. he found that he was bleeding from the gums. This lasted for about four hours and then stopped, but reappeared shortly before coming to the hospital. He had never, he said, noticed it before, but had been subject to profuse hæmoptysis, and at times had found "large blue lumps" on the chest, over the sternum, coming without any cause. These swellings lasted a few days, and then disappeared. He had never had any hæma-

temesis or melæna, nor, to the best of his belief, any effusion into the joints. He volunteered the statement that four of his relations had died of the same thing, but did not know what relationship they bore to him. This made him extremely anxious. He was ordered a gallic and sulphuric acid mixture, and a mouth-wash of alum. This seemed to have had a slightly beneficial effect for a time, but the bleeding returned as bad as ever the following morning (July 9th).

On admission a physical examination revealed a soft systolic murmur at the apex of the heart. Blood was oozing freely from the gums of the upper jaw on the right side. A mixture of iron and the liquid extract of ergot was ordered, and a mouth-wash was given containing equal parts of the tincture of perchloride of iron and water, and the patient was encouraged to suck ice freely. The bowels had acted well. He was put on a liberal diet, which he seemed to take with relish. The hæmorrhage, however, abated little, if anything. The same evening counter-irritation was tried to the back of the neck, but without any perceptible advantage.

On July 11th he presented a ghastly appearance. He had had a very bad night, and after dozing a little had vomited black discoloured blood at intervals. The hæmorrhage had not ceased for a moment. On examining the mouth, the blood seemed to be now coming with a pulse-like motion from the gums of the last two upper molars on the right side; it was watery-looking, and gave the impression of its being arterial. The man had no pain in any of his teeth, which were all sound and of exceptional whiteness. Considering the urgency of the case, it was thought that the actual cautery might be applied with advantage. Accordingly, Mr. Wright, the house-surgeon, passed the cautery along the bleeding surfaces on both sides of the teeth. This produced an eschar over the place; but the gums of the adjoining teeth now began to bleed. Lint soaked in a solution of the subsulphate of iron was now freely used, and the hæmorrhage was completely stopped for about one hour. At 3 P.M. it returned again from the mucous membrane of the cheek and the whole line of gums. The patient was now thoroughly exhausted, presenting a blanched and haggard look, and complaining of pain in the chest and epigastrium. A linseed-meal poultice was applied with relief, and the subsulphate of iron used as before, this time, however, with not such a happy result. Constantly vomiting altered blood and rapidly becoming weaker, he was at last unable to retain the nourishment necessary to sustain life, and died exhausted at 2 A.M. on July 12th.

CROYDON GENERAL HOSPITAL.

OVARIOTOMY; RECOVERY.

(Under the care of Mr. HENRY HORSLEY.)

FOR the following notes we are indebted to Mr. J. J. Newman, house-surgeon.

M. P——, aged forty, unmarried, had been under observation as an out-patient for some months previous to being admitted on Jan. 27th, 1880, for the purpose of undergoing the operation of ovariotomy. Her general health had been good two years before she first noticed that her abdomen was increasing in size; this was most marked in the right side. The swelling slowly progressed, and latterly she had experienced much dragging pain, chiefly in the right groin, and was felt more particularly when lying on her left side.

On admission she had the anxious and pinched expression so often seen in ovarian dropsy. She was of a rather spare habit, but her body was well nourished, and the excretions were normal. Menstruation was regular, and had never been very excessive. The greatest measurement over the tumour was thirty-four inches. There was dulness on percussion, and fluid vibration was perceptible, but not very well marked.

As the ovarian cyst appeared to be free from any extensive adhesions, it was thought to be a proper case for ovariotomy, which was accordingly performed on Feb. 18th. The patient was put under the influence of chloroform, as the bichloride-of-methylene apparatus was found to be out of order. The operation was performed antiseptically, thymol being used in the steam spray. The abdominal incision was five inches in length. The tumour was readily reached, and found to be free from adhesions. It was tapped with one of Spencer Wells's trocars, the fluid being of a thick gelatinous consistence, having a greenish-yellow appearance. The pedicle, about an inch and a half broad, was transfixed with a needle, and the two halves were tied with a ligature of carbolised Chinese twist, No. 4 size, the ends of one of the ligatures being made to encircle the whole pedicle, which was then divided. The ligatures were cut off short, and the stump dropped into the abdominal cavity. The sponges used to clean out the peritoneal cavity were soaked in carbolic acid lotion (1 in 40). The external wound was closed by four silkworm-gut sutures, which had been soaked in the carbolic lotion; the sutures were passed from within outwards, the peritoneum being included. Two superficial sutures of carbolised Chinese twist were inserted at the lower part of the wound; hyaloderma smeared with vaseline was placed over the incision, overlaid by pads of thymol and carbolised gauze, which were fixed with strapping and flannel binder. The patient was then removed to a warm bed in the same ward in which she had been operated upon, there being no other patient in the ward.

She made a good recovery, the temperature never rising higher than 99° F., and pulse never exceeding 96. She was sick several times during the night of the operation from the effects of the anæsthetic. The catheter was used regularly for the first eight days, and a hypodermic injection of morphia given nightly for the first week, during which time she was fed upon iced milk, beef extract, and a very small quantity of brandy. The wound healed by first intention, not a drop of pus being formed. On the eighth day all the sutures were removed. The bowels not having acted, warm soap-and-water enemata were used. She menstruated nine days after the operation naturally and comfortably. She left her bed in three weeks, and was discharged from the hospital in five weeks and a half, with an abdominal support. On July 10th she was in perfect health.

The tumour consisted of two communicating cysts—one large and the other much smaller.

MANCHESTER ROYAL INFIRMARY.

CHRONIC SYNOVITIS OF KNEE-JOINT; ASPIRATION OF JOINT.

(Under the care of Mr. HEATH.)

FOR the following notes we are indebted to Mr. Oliver Withers.

Annie G——, aged twenty-three, weaver, fair complexioned and well nourished. She began to suffer great pain in the right knee about three years before, and swelling then set in. The knee, however, neither looked red nor felt hot, but the pain continued, and became very acute, especially when she tried to walk. The swelling remained with but little variation in amount up to the time of admission. She had always had good general health. Had no recollection of injuring her knee, though she was often obliged to kneel for long together in her work. There was no history of rheumatism, and there was no evidence of struma.

The right knee-joint was swollen, the swelling chiefly affecting its upper part. There was distinct bulging on each side of the quadriceps tendon, and fluctuation was clearly felt across the joint. The knee felt of normal heat, and there was no redness of the skin. Night-pain was very acute within the joint, though there was no tenderness or pain when the sole of the foot was struck. The synovial membrane felt thickened, and the joint-cavity was evidently distended with fluid. Temperature normal.

On May 25th Mr. Heath aspirated the joint under the carbolic spray by pushing in the trocar on its outer side about one inch and a half external to the margin of the patella. About three ounces of a thin, dark straw-coloured fluid were removed. The wound was then dressed antiseptically, and the limb placed on a back splint, with a foot-piece to ensure rest to the joint. The next day the patient was quite comfortable, having slept soundly through the night. Temperature normal.

The leg was left untouched until June 1st, when the dressings were removed for the first time; the wound had quite healed, but there still remained some slight pulpy thickening in the joint.

On June 8th Scott's dressing was applied with a starch bandage over it. The knee was still painless. The temperature never rose above the normal line during the whole time she remained in hospital, and the pain was completely relieved by the operation.

ACUTE SUPPURATION OF KNEE-JOINT; ASPIRATION.

Martha V——, a thin, pale, delicate-looking woman of twenty-seven, had suffered with a swelled and painful knee for about a month. She had no recollection of having injured the knee, but her attention was attracted to it by the severe pain she felt in it, and she found a slight swelling on one side of the patella. This quickly increased in size until it spread over the whole joint, which became very hot and tender.

On her admission (May 17th) the knee was very swollen, hot, red, and painful. There was great bulging over the inner part of the joint, and the skin was very tightly stretched over the contained fluid, and was of a deep red colour. The knee was slightly flexed, and she kept it perfectly quiet on account of the acute pain which the slightest movement brought on.

Mr. Heath determined to aspirate at once. This was done under the spray, and five or six ounces of a sero-purulent flaky fluid were withdrawn. The limb was dressed like the former case. Axillary temperature 100·6°. When the dressings were removed next day three ounces of pus escaped. Temperature normal; no pain. The limb remained bandaged after being dressed a few times from the 25th of May to the 2nd of June, when the wound was found to have healed. The joint was quite painless, and there was no return of swelling or other inflammatory symptoms. Patient left hospital with some joint-movement on June 18th. The temperature in this case after operation never rose above 99·2°, and from the sixth day to the end of the time was normal.

SHEFFIELD GENERAL INFIRMARY.

CONTUSED WOUND OF KNEE-JOINT: SUPPURATION; RECOVERY.

(Under the care of Mr. JONATHAN BARBER.)

FOR the following notes we are indebted to Mr. Charles M. Goyder, late house-surgeon, now senior house-surgeon at the Newcastle-on-Tyne Infirmary:—

J. G——, aged twenty-one, grinder, was admitted on Oct. 27th, 1879, suffering from contused wound of the left knee. He said that whilst grinding, the stone flew to pieces, and the sharp edge of a heavy fragment struck the outer side of the left knee-joint.

On admission there was a wound one inch in length, and transverse in direction across the outer side of the left knee-joint, in the interval between the external semilunar cartilage and the external condyle of the femur, completely severing the outer fibres of the ligamentum patellæ. On cleansing the wound, which contained much grit and dirt, the synovial membrane was found to be divided, and the cartilage covering the external condyle scored and abraded. There was no bleeding, but synovia escaped freely from the wound. The patient's general condition was good; pulse quiet. There were no symptoms of shock. The urine was healthy. The patient did not complain of much pain, walked to the infirmary, and was with difficulty induced to stay.

The wound was carefully cleansed at once, and the patient removed to bed. The joint was syringed out with a 5 per cent. solution of carbolic acid, a drainage-tube was inserted, and the usual antiseptic dressing was applied under the spray. The limb was placed on a back splint. Milk and beef-tea, together with perfect rest, prescribed. The evening temperature was 100° F. Next day there was a plentiful serous discharge, but the wound looked well. Morning temperature 99°. On the 29th the wound looked angry and tumid. The discharge was copious; the dressings were fetid, and at Mr. Barber's request were replaced by poultices of linseed meal. On the 30th pus was escaping freely. The morning temperature was 103°. There were great swelling and redness around the joint, with œdema of the limb above and below, and the man complained of intense pain with startings at night.

From this time the patient's general condition grew worse. Hectic supervened, and was soon followed by large abscesses in the substance of the thigh, but by none below the knee-joint. There was rapid emaciation; the tongue was red and small; the pulse rapid and easily compressed. There were frequent rigors, the temperature varying from 102° or 103° in the evening to 99° in the morning. There were headache, sleeplessness, vomiting and purging, and great general depression.

The abscesses were evacuated through drainage-tubes. Chinchona with ammonia was administered internally, together with liquid nutritious food and a stimulant (brandy). Morphia was administered hypodermically to relieve pain.

The general condition gradually improved, through a long but steady convalescence. He was allowed to take solid food, with one pint of beer daily. At the same time he was put upon a McIntyre's splint, in order that as anchylosis took place the limb might be slightly flexed at the knee-joint.

Anchylosis gradually took place, and on March 18th he became an out-patient, with a firm, useful limb. On May 20th he was seen, and stated that his leg was perfectly firm, and becoming daily more useful to him.

KNEE-JOINT DISEASE; EXCISION; RECOVERY.

(Under the care of Mr. J. BARBER.)

S. K——, aged twenty, admitted Feb. 6th, 1880, suffering from disease of the left knee-joint. She stated that fifteen years before she injured the left knee by a fall, and that the limb had never been properly useful since, although she had continued to work and do some amount of housework.

On examination the knee was seen to be swollen and bulged laterally; it was hotter than the right. The limb was straight, and only very slightly shorter than the opposite one. There was fluid in the joint, and the ends of the bones were expanded. Upon moving the limb flexion and extension were found to be limited, though the patella was free, and there was no grating. Lateral movements showed the ligaments to be relaxed. The heart and lung sounds were normal and the urine was healthy.

On March 10th, under antiseptic precautions, Mr. Barber excised the left knee-joint. The bone ends were found soft and diseased, and were freely removed; the synovial structures were thickened and pulpy, and they also were removed. There was very slight bleeding, and a drainage-tube was inserted between the bones, on a level with the extremities of a horse-shoe-shaped incision. The limb, after having been dressed, was placed upon a back-splint with an interruption opposite the knee. Milk diet was ordered. At 6 P.M., as considerable oozing had taken place, the wound was dressed by Mr. Kirsopp, assistant house-surgeon. Evening temperature, 99°.

Next morning the wound was dressed again and was doing well. There was no pain. The drainage-tube was removed and cleansed. Morning and evening temperature 98·4°. On the 16th the wound was dressed. There were no signs of inflammation; the discharge was serous. On the 22nd the wound was healed, except at the opening for the tube.

On April 20th there was no motion laterally, and so far no inflammation or its results. The tube had been gradually shortened.

On May 12th the wound was entirely healed. There was good firm union, although not bony. Temperature throughout the case 98·4°.

On June 5th the limb was placed in a starch bandage, and the patient was allowed to move about and get up. She complained of no pain, and felt perfectly well.

On July 29th the patient was going on extremely well, and although true bony union had not yet taken place, the knee was quite sound, and movement becoming less.

BELFAST ROYAL HOSPITAL.—The last Sunday in November is appointed for a general collection in Belfast in aid of the funds of the Belfast Royal Hospital, instead of the last Sunday in the year as heretofore. The employés and staff of the Brookfield Linen Company have contributed the very handsome sum of £40 18s. 5d. towards the funds of this charity.

A DEARTH OF WATER is threatened in the Clyde district. Greenock is stated to have only a thirty-six days' supply in store; and at Dumbarton, should the consumption be at the usual rate and the drought continue, the stock of water, it is feared, will be exhausted in less than a fortnight.

Reviews and Notices of Books.

Cours de Thérapeutique, professé à la Faculté de Médecine. Par ADOLPHE GUBLER. Paris: Bailliére.

THE name of Professor Gubler is probably not much known in this country, but few recent French physicians have inspired more affectionate regard and esteem among their pupils, or have at their death been more lamented. His last course of lectures was completed in July, 1878, and since his death they have been published under the supervision of Dr. Bordier. They have, however, been given to the public unaltered, from the shorthand notes of one of his pupils. The volume fully maintains its author's reputation. It is clear and fairly concise in style, and exhibits a wide knowledge of facts, old and new. The lectures possess, however, a characteristic which is very common at the present day in French medical literature—an endeavour, by extensive generalisation, to include all facts under general laws in a firm, if courteous, dogmatism, which does not like, and often will not tolerate, differences of opinion.

The work is not a systematic treatise on Therapeutics, but rather a sketch of the general principles of the action and use of remedies, illustrated by examples, some of which are given in considerable detail. Some general considerations on the nature and effects of remedies occupy the first four lectures. The various modes by which they are introduced are described in the next seventeen lectures. Four are then devoted to a consideration of the changes which drugs undergo in the system; and in the remaining lectures are discussed the modes of elimination of drugs, and the question of their antagonism. Drugs constitute but a part of our therapeutic arsenal, and the author's first task is to draw the necessary distinction between remedies and medicaments. He insists, with justice, on the therapeutical importance of many remedies which are not usually noticed in a survey of the subject. Foremost among these are moral agents, in which are included amulets and homœopathy—"encouragement and clear water" constituting the essential muniments of the latter. The mechanical and chemical effects of drugs are next glanced at, and the author then discusses the *modus operandi* of the large class of agents which do not act in either of these ways. Many drugs and articles of diet are capable of producing a profound effect even when given in small quantity. The theory is advanced that their operation is by yielding force to the system. The argument is based on the analogy of the liberation of force (heat, light, &c.) by substances in changing their state, and it is urged that no other theory is conceivable. It must be confessed, however, that the direct evidence in support of this theory is very small. Of an explanation of the action of many agents, as alcohol, coffee, &c., that they spare the tissues by lessening tissue consumption, Professor Gubler speaks in terms of contempt, but he brings forward no destructive evidence. Much as there is in physiology which cannot be explained by the known facts of mechanics and chemistry, there is even more that is thus inexplicable in pharmacology and therapeutics. The addition to the "radical forces" of the organism is regarded as the essential action of tonics, and stimulants are distinguished as agents which merely excite the evolution of the force furnished by the tissues. The ultimate effect is the same, the path by which it is reached is essentially different. The one increases, the other lessens, the force-producing power. The action of small and of large doses of strychnia is given as an example of this difference. The idea is, of course, that which underlies the name of "tonic" and "stimulant," but it may be doubted whether modern physiological knowledge should not make us hesitate before accepting it. That a simple stimulant may act ultimately as a tonic, the effect of muscular exercise, voluntary or that artificial exercise which is produced by galvanism, abundantly shows; and it may well be that many true tonics are purely stimulant in their mode of action. The elective action of drugs on different parts is explained partly by their mode of elimination, and partly by analogues of chemical constitution between the drug and the tissues. The former explanation does but push the mystery a little further back, while the latter, supported though it is by the opinion of Liebig, rests on so small a basis of even presumptive evidence that it seems better to confess our ignorance than to attempt a dogmatic explanation.

In considering the medicinal substances which are drawn from the vegetable kingdom, M. Gubler directs attention to the remarkable illustration which they present (and which many inorganic drugs present likewise), that their influence has no relation to the constituents, but depends on the proportion and mode of arrangement of their elements. Drugs which are inert and those which are most potent are composed for the most part of the same elements. Their different action depends on the way these elements are grouped; as, for instance, we see in the similarity of combination in all the anæsthetics. Moreover, the most potent of the constituent elements—nitrogen—seems to render the compounds less active. Atropine contains less nitrogen than morphia; morphia less than theine. A still more striking instance of the effect of combination is afforded by arsenic, which, so potent a poison in an isolated form, is powerless when combined in cacodyl. Thus a slight change in constitution may profoundly alter the action of a drug. The beautiful discoveries of Fraser are quoted in illustration of this. The substitution of a molecule of ethyl for one of hydrogen in strychnia converts the most powerful tetanising agent known into one which paralyses the muscles, and thus we are able to understand how it is that the source of curara and of strychnia is almost the same.

The method by which medicaments are introduced into the system constitutes the next topic. The necessity there is that the substance should be in a liquid state is provided for, to some extent, by the solvent powers of the digestive juices, and of this one of the most important instances has only recently become known—the solvent power of albumen, contained so abundantly in the mucus of the alimentary canal, and which can dissolve even metallic mercury. But this method of administration has its disadvantages in the gastric irritation which many drugs occasion, and in the interference which they cause with the digestive process. An instance of the latter is furnished by some experiments with phosphorus. Having noticed a disturbance of digestion when phosporus was given with food, M. Gubler obtained some gastric fluid from the dog by means of a biliary fistula. He placed some in a series of tubes with pieces of meat, and to some of these he added powdered phosphide of zinc. In a certain number of hours the tubes which contained only meat and gastric juice remained unaltered, while in those to which the phosphide of zinc had been added the meat was softened, browned, and half transparent. He has suggested an ingenious method by which the gastric irritation may be avoided and drugs kept from contact with the mucous membrane until the intestine is reached. This consists in enveloping them in fatty matter which is not acted upon in the stomach, but which becomes removed and absorbed when it reaches the intestine. It has been proposed to administer bile in this way when the secretion of the liver is deficient.

Into M. Gubler's discussion of the advantages and disadvantages of the introduction of remedies by the other mucous surfaces we cannot follow him in detail, but may mention one or two of the points on which he lays special stress. The statements which have been made regarding

the absorptive power of the mucous membranes of the bladder and vagina are singularly contradictory, but are reconciled by the different conditions under which the observations have been made. In health the absorptive power of these surfaces is very small; in disease it is very active. Hence, under the conditions in which we most want the local effect of remedies, we may apply them without hesitation, if they are not deleterious to the general system. Of all the mucous membranes the most active can be utilised only for vapours—that of the lungs. Some instances mentioned of the absorptive power of the lungs for liquids deserve to be better known. It was found at Alfort that from ten to fifteen litres of water introduced into the lungs of a horse were absorbed with great rapidity. Indeed, a constant current of water might be thrown into the air-passages, and the animal might die from the effect of the water on the blood and tissues, and yet the lungs after death be found free from water. These and other facts furnish a rational basis for the introduction of atomised liquids by the lungs, and even, within restrictions, of atomised solids. These subjects are discussed at length, and very ably, in the pages of M. Gubler's work.

An interesting chapter is devoted to the question of the administration of drugs through the undamaged skin. The experiments which have been made as to the absorption through the skin are carefully examined in the light of the author's own investigations. The facts that iodide of potassium is not absorbed from a bath, while a solution allowed to dry upon the skin is absorbed, are at first sight contradictory. Their reconciliation is found in the law that watery solutions are not absorbed, but that volatile substances do enter the system through the skin, apparently by their power of diffusion into the glands. If iodide of potassium is allowed to remain in contact with the skin, it is decomposed by the fatty acids, and the iodine thus passes in. Moreover, fatty substances are readily absorbed by the sebaceous follicles, and may carry with them substances which are dissolved in them, or which are in a state of fine suspension. The secretion of the sebaceous follicles, which facilitates this, hinders the absorption of watery solutions just as an oiled filter allows fat to pass through, and does not allow the passage of a watery solution which may be mixed with the fat. Thus many liniments, the basis of which is oily, are effectual. Moreover, the absorption is favoured by substances, such as chloroform, which can dissolve fatty matters, and therefore the secretion of the sebaceous follicles. The absorption of volatile, non-fatty substances is most active where the sebaceous glands are fewest, as in the axilla and groin.

The hypodermic method of administration receives its full share of attention, no less than five lectures being devoted to history, methods, application, theory, and dangers. The facts, admirably described, are for the most part well known. The author's opinion on the much-discussed question of the relative value of local injections—i.e., made into the part which is the seat of the disease—is worthy of note. His experience of the use of the hypodermic method is so large that his opinion on this point deserves special weight. It is strongly in favour of injection into the seat of the disease. The facts adduced in support of this view are, if well observed, conclusive. He states that in patients suffering from the rare condition of double sciatica the pain in the leg into which the injection is made is relieved far more than that in the other, and that this observation may be made alternately on either leg. Another interesting observation relates to the diminution of sensibility often to be noticed around the seat of the injection. He has observed this with injections of various substances, and uniformly when water only was injected. He attributes it to the hydration of the cutaneous nerves in their subcutaneous course. It passes off when the local excess of water is removed. To this action the effect of injections of pure water is to be ascribed. He relates the case of a patient in whom he frequently substituted an injection of water for one of morphia, always with the effect of temporarily relieving the pain, which returned, however, much sooner when water was injected than when morphia was used.

The next four lectures are devoted to a consideration of the modifications which drugs undergo in the organism, illustrated by a lengthy and detailed study of the action of arsenic, in which, however, there is little that calls for special notice. Of more interest is the subject of the elimination of medicines, which is next examined at length. The faculty of generalisation, here as elsewhere throughout the work, carries the author into positions which are, we will not say untenable, but certainly less impregnable than their mode of statement would imply. For instance, he finds an explanation of a large class of facts in regard to the action and elimination of drugs in the relation which they bear to the constituent elements of the tissues. "Drugs are rejected the more rapidly, the more widely they differ from the normal components of the organism." Bernard has shown that the salts of potash are not tolerated so well as those of soda; they are indeed "muscular poisons." This is because there is little potash normally in the blood. Hence the potash is not expelled from the blood. The muscles contain normally much potash, and hence the potash in the blood accumulates in them in an excess which interferes with their nutrition. In the case of other salts the action of the same law is seen. Chlorides are better tolerated than bromides, and these than iodides, "always for the same reason" that the chlorides are in abundance in the organism, and hence are eliminated more rapidly. "Tolerance or intolerance for a substance is explained by its homogeneity or heterogeneity with regard to the organism which receives it." The reader will probably hesitate to accept the "law" as the sole explanation of the facts, and his hesitation will not be lessened when he reads, two pages further on, of some facts which are scarcely reconcilable with it (although the author appears unconscious of this)—namely, that iodide, bromide, and chlorate of sodium are eliminated twice as slowly as the corresponding salts of potash, and that the same is true of the carbonates of soda and potash respectively. In truth, our knowledge of the action of drugs and the physiological chemistry of the tissues will probably have to be much more extensive before we can formulate the laws on which their elimination depends. We have not space to follow the author in his discussion of other facts relating to the elimination of drugs, and to their accumulation in the system.

In the final lectures the subject of the antagonism of medicines is very ably discussed, but on this subject we must refer the reader to the work itself. It will well repay perusal. As a guide to students, the small field which it covers, and the large amount of hypothesis which it contains, render it scarcely suitable. The teacher of therapeutics, however, will be rewarded by its study, on account of the extensive knowledge of facts, many of which are unfamiliar, the quickness to seize the relations of those which are apparently distant, and the long experience, which it displays.

Headaches; their Nature, Causes, and Treatment. By WILLIAM HENRY DAY, M.D., M.R.C.P. Lond., &c. Third Edition. J. & A. Churchill.

WHEN a work reaches a third edition, it may claim to have justified its author in writing it, and to be pretty independent of reviewers. There have been many previous works on headache, but it is to be admitted that Dr. Day writes at some advantage over his predecessors, inasmuch

as he is in possession of a deeper physiological knowledge of the problems involved in headache than was possible before the researches of Bernard, Ferrier, Jackson, and others. We are not yet, however, in possession of any such physiological knowledge as will enable us to comprehend all the mysteries of headache, or to know why one person's head is so constituted that it is more easy to say when it is not aching than when it is, and another's is so constructed that it never aches at all; why one person's headache always occurs on a Monday, and another's on a Friday, both of which are within our clinical experience. We are not yet ripe for any strict pathological theories of headaches. Dr. Day wisely says that "*he has relied rather on the investigation of facts as presented by the record of cases, than trusted to plausible theories.*"

In successive editions we should advise Dr. Day to discard theories even more freely than he has done, and all but strictly clinical classifications of his subject. By so doing he will still further simplify it. Some of his chapters seem tautological; as, for example, when he devotes one chapter to headache of cerebral hyperæmia, another to congestive headache, and another to plethora and increased vascular action. He describes no less than thirteen kinds of headache, exclusive of a chapter on headaches of childhood and early life, in which he mentions seven kinds of headache. It is, of course, difficult to discuss headache by itself, and to attempt to do so requires some justification. But it is so conspicuous and "commanding" a feature of human suffering that physicians may well be excused for giving it special consideration, though no better illustration could be adduced of the impotence of "specialism" than when it attempts to separate and to treat headache as an isolated disease. Dr. Day takes no such limited view of his subject, but, as a practical physician, regards it in the light of his patient's age, circumstances, history, and diathesis; he brings to bear upon it a large amount of experience and medical knowledge, and makes many therapeutical suggestions of much value.

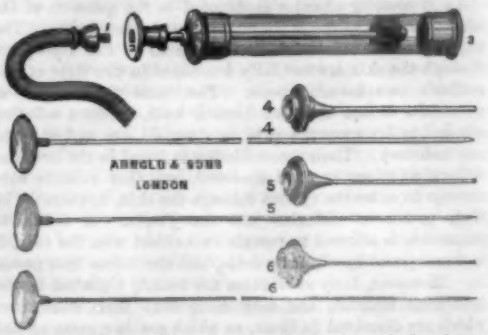
On Preservation of Health in India. A Lecture, addressed to the Royal Indian Engineering College at Cooper's-hill, May 17th, 1880. By Sir JOSEPH FAYRER, K.C.S.I., &c.

THE object of this lecture was to give to the young men educated at Cooper's-hill such information about the climate, mode of living, diseases, and means of preserving health in India, as would be likely to prove useful to them in the peculiar circumstances under which they are placed on commencing their service in that country. It appears that there has been a great amount of sickness among the young engineers who have gone out to India, and that much of it was of a preventable character, and might have been avoided by a very moderate amount of information as to the mode of life to be followed on first arrival in the country, and the best course to be taken to meet the first symptoms of illness. To remedy as far as possible the effects of this want of knowledge, Sir Joseph Fayrer was requested to deliver this lecture. In it he has given a brief sketch of the climate of the various parts of India in which the engineers are employed, and has pointed out the more prominent causes of disease and the best means of counteracting them. The latter may be briefly summarised as—Lead regular lives, avoid excesses of all kinds, take regular exercise, keep the bowels open, wear flannel, and as far as possible avoid exposure to the sun. He has also given a short description of the most prevalent diseases, and the measures to be adopted until medical aid can be obtained; and an interesting account of the effects of snake-bites, and how to treat them—a subject upon which he may be justly considered the highest authority. The lecture cannot fail to prove useful to those to whom it was addressed; but we would suggest to Sir Joseph Fayrer that he would confer a still greater benefit upon them if he made it the groundwork of a short handbook on the subject, prepared with special reference to the work upon which, and the circumstances under which, the Civil Engineers in India are employed.

New Inventions.

EXPLORING ASPIRATOR.

MESSRS. ARNOLD have made for Dr. Hensley of St. Bartholomew's Hospital an exploring aspirator. It consists essentially of a syringe in combination with a cannula and trocar; the cylinder of the syringe being prolonged into a fine cannula, while the piston-rod is continuous with the trocar, so that the retraction of the trocar and of the piston causing aspiration is by one movement. The cylinder of the syringe is a glass tube fitted with similar screws at both ends, one of which fastens into the collar of the piston-rod; the other (3 in the figure) takes a screw-cap, by means of which cannulæ of different sizes may be fixed in air-tight



connexion. The needle passes completely through the piston-rod, and, when the syringe is filled, may be withdrawn by unscrewing at 2; the elastic tube, 1, can then be easily attached without any risk of air passing through the cannula.

The advantages of this instrument, as compared with the ordinary subcutaneous syringe used for diagnosis, are: it is stronger and made with a larger tube; the needle-point is at once withdrawn, and the orifice of the instrument cannot get blocked in inserting it; whilst after being used for exhaustion, it may be employed for the injection of antiseptic or other fluids if required. As compared with a larger aspirator, the advantages it possesses appear to be, that the risk of admitting air is considerably diminished, whilst the glass cylinder affords means of observing the flow of fluid close to its point of exit; also that a smaller cannula may be used than can be employed with a larger instrument. It is important, in using it, to see that all the fittings are in working order, and screwed tight.

DR. HAMERTON, resident medical officer of the Lambeth Infirmary, was presented with a handsome testimonial, on the occasion of his leaving, by the officers and others connected with the institution; it consisted of a microscope by Baker, a pocket case of instruments, a gold pencil-case, and a diamond breast-pin. Great regret was expressed by all at his leaving, he having held the office more than five years, and during all that time he was universally respected by his fellow-officers and loved by his patients.

BUTTERINE.— In a Dublin police-court last week, five traders were fined £2 each for exposing for sale as genuine butter a substance known as "butterine," or oleomargarine. This is the first occasion in Dublin that a prosecution has been instituted for the sale of butterine.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 4, 1880.

THE chief topic of Professor HUMPHRY'S Presidential Address at the recent meeting of the British Medical Association at Cambridge is especially deserving of notice at this time—the approach of a fresh medical session. For many years Professor HUMPHRY has devoted himself to the task of reviving the medical school at Cambridge, and in his address he discussed the subject at great length. He first showed that it was not the original intention of the founders and the first legislators of the University to exclude medicine from the studies at Cambridge. In the earliest College statutes permission or direction is given to some of the members to pursue the study of Medicine, and in the scheme for the University, which was in the main based upon that of the University of Paris, the Faculty of Medicine was placed on an equal footing with those of Theology and Law, and the provisions for teaching and graduating in the three faculties were identical. So, also, in the professorial foundations of HENRY VIII., by which the professorial system was made to supersede the method of teaching by regents, bachelors, and doctors, Medicine shared in common with the other faculties. How have these intentions to establish an actual medical faculty been foiled? The answer is neither direct nor easy, but may be found, says Dr. HUMPHRY, if at all, by a careful study of the history of the past. Some of the causes of failure are peculiar to Cambridge, and some appertain to rival English or continental cities and schools.

After a rapid survey of the history of medicine in Europe from the thirteenth to the seventeenth century, Professor HUMPHRY proceeded to consider in detail some of the circumstances that had militated against the existence of Cambridge as a medical school. The fame and reputation of many of the continental anatomical and medical schools, such as Salerno, Bologna, Paris, and Padua, attracted the best of the English youth, and when they returned to their native country Cambridge did not offer sufficient pecuniary or courtly attractions even for its own *alumni*. HARVEY, for instance, when he returned from Italy, settled in London; and CAIUS first practised in Shrewsbury, and then in Norwich. Even GLISSON, the Regius Professor of Physic in the University of Cambridge from 1637 to 1677, was a resident in London.

Another cause of Cambridge's failure was the ascendancy which the metropolis had gained by the foundation of the College of Physicians. In 1518 the learned LINACRE obtained from HENRY VIII. letters patent to found the College, with the privilege of licensing practitioners throughout the country. Lectures were delivered at the College, and London thus became the chief centre of medical teaching as well as of the licensing of medical practitioners. Thenceforth the metropolitan influence grew apace. Teachers, practitioners, and students were attracted in large numbers, and the vast population afforded plenty of scope and material for the study of clinical medicine.

Another drawback was the religious restrictions imposed by the University. These restrictions, says Professor HUMPHRY, "wellnigh divested the University of the character of a national institution, and of its claim to public sympathy and regard."

These defects have, however, at length been removed, and an opportunity is now afforded to Cambridge of taking a distinct place as a centre for teaching the preliminary subjects of medical study, such as natural philosophy, botany, chemistry, anatomy, and physiology. It is, perhaps, not possible, and it is scarcely desirable, to attempt to make of Cambridge a school of practical medicine and surgery; the material is lacking. Medicine, surgery, and pathology can only be adequately studied in the centres of large communities, but the pursuit of chemistry, anatomy, and physiology does not need the same extraneous conditions. Cambridge may very properly take the initiative in alluring would-be medical students to a higher grade of preliminary education, and as the general preliminary education improves the *status* of the medical student will rise in a corresponding degree. It will then not suffice to have the sciences of chemistry, anatomy, and physiology taught by junior medical practitioners, whose chief ambition is to gain a large medical and surgical practice in a big city. Medicine and surgery proper must, of necessity, be taught by trained and experienced practitioners; but chemistry, anatomy, and physiology are best and most worthily taught by skilled professors free from the distracting anxieties of practice. In this way Cambridge is capable of doing a service to the cause of medical education. Its University already possesses, or may easily acquire, the facilities for teaching these important preliminary medical subjects. To the metropolis and other populous districts must be always entrusted the task of furnishing the *matériel* and *personnel* of the strictly medical education.

THERE have been few subjects in pathology more debated than diphtheria, and the special lesion which characterises it—from which indeed it takes its name; and few about which so much needless confusion and mystery have clung. We may now fairly assume that the vexed question of identity between this disease and that styled "membranous croup" has been set at rest, and it is not intended here to raise it again. At any rate, it has been shown conclusively on all sides that there is no anatomical difference in the two diseases, but only a topographical difference as to the seat of the exudation; and similarly, one by one, all etiological, clinical, and other distinctions have faded before the exhaustive analysis of modern inquiry. Still, however, pathologists have differed much upon the subject of the nature of the false membrane in diphtheria, and it is only one instance out of many in pathological histology which show how various may be the interpretations put upon microscopical appearances. The reason for divergence of opinion is not a simple one. It depends, in one instance, upon the different stages at which the exuded product has been observed; in another, upon the different seat at which it has been formed; and sufficient account has not been taken of such essential points as these, whilst too much stress has

been laid upon other and more accidental features. The sad confusion which resulted from the introduction of the terms "croupous" and "diphtheritic," as general pathological phrases, indicative of various forms of inflammation of mucous membranes, with which the German school is to be credited, has done much to complicate the plain facts of the case; and the non-recognition of the fact that the effects of local irritation of a simple kind lead to changes on mucous membranes identical with those produced by the specific irritation of the diphtheritic poison is yet another element which still obscures the subject. A remarkably lucid exposition based upon carefully conducted study of this phase of the question by M. LELOIR, in the current number of the *Archives de Physiologie*, seems to us to be worthy of attention. Although this observer arrives at conclusions differing in some points from those of others, yet he has succeeded well in harmonising many discordant views, and has placed the matter in so clear a light that we think it well to briefly follow him in the course of his reasoning.

M. LELOIR commences by a brief historical summary of the views held upon the nature of the diphtheritic false membrane, and he shows how, from having held the opinion that this is purely a fibrinous exudation, pathologists have come round to view it as one of purely epithelial transformation, the first to enunciate this view being WAGNER in 1866. The truth indeed lies between these two schools, and the way at which this has been arrived has been by experiment. Many observers have hitherto tried to establish the identity between the membranous exudations following the application of irritants to mucous membranes and the specific membranous formations, but have been subjected to much hostile criticism, and have failed to carry conviction. LELOIR has followed the same course, producing the exudations on the fauces and pharynx in dogs, rabbits, and guinea-pigs, chiefly by means of ammonia, and observing the changes produced both by the naked eye and by microscopical examination at intervals varying from fifteen minutes to two or more days after the exposure to the caustic. He has thus been able to trace all stages of evolution of the false membrane. At first the change is simply denoted by redness of the affected patch, which sets in almost immediately after the application. But already the superficial cells of the stratified epithelium exhibit notable changes. A clear space appears around their nuclei; the cells are enlarged, but remain connected, whilst in the deeper strata there is evidence of their proliferation, and the vessels of the submucosa are gorged with leucocytes. About an hour after the application the patch has assumed a semi-transparent opalescent appearance; the perinuclear clear spaces have enlarged, the cell-protoplasm has become fibrillated and of a glistening character, whilst the nuclei remain in parts unchanged, in other parts increased in number but not in character. Thus in this stage the upper layers of what is now a distinct false membrane presents a reticulate appearance, wholly due to changes in the epithelial cells themselves; but in a very short time—five to eight hours—this primary reticulum begins to disintegrate, leucocytes and a fibrinous exudation penetrate the meshwork, until there is formed a thick white opaque membrane, that with which we are most familiar in diphtheria. In this third stage of its evolution the membrane can be resolved into two distinct parts—a *superficial*, composed of fibrinous filaments entangling pus-cells, degenerate epithelial cells, and fragments of the primary reticulum, which still persists in a modified form in the *deeper* layer. In the fourth stage the membrane has assumed a yellowish-grey colour, the epithelial reticulum is almost entirely broken up and replaced by the exuded inflammatory material; and the final stage is that of disintegration of the false membrane, which assumes a pulpy consistency and yellowish colour. If the inflammation has been very intense, the vessels in the submucous tissue are compressed, and necrotic processes of a more or less deep extent take place.

Now, on comparing these changes with those which take place in pharyngeal diphtheria, a perfect similarity is observed between them. As may be imagined, M. LELOIR has had no opportunity of studying the earliest stage of the membrane in this disease, but he was enabled in two cases to meet with areas of exudation in the second or "opalescent" stage, and he found there the reticulum formed from altered cells, the nuclear proliferation, and the commencing invasion of the reticulum by fibrin and leucocytes, just as in his experimental cases; groups of micrococci being found in addition. And so, indeed, with the later and better known stages of the diphtheritic membranous formation; a close identity was found between it and that produced artificially upon the pharynx, fauces, epiglottis, and vocal cords. In the non-stratified epithelium of the larynx and lower air-passages there is no scope for the formation of the epithelial reticulum, and the false membrane is then almost entirely composed of leucocytes and fibrin, a distinction which sufficiently accounts for the well-known difference in the degree of adhesion to the subjacent mucous membrane in this site as compared with the pharynx. The fact that in diphtheria the membrane will re-form after being detached, whereas it does not in the case of simple irritation, is explained by the persistence of the cause of irritation—the specific poison—in the former case, and its absence in the other; and probably also from the blood-plasma being altered in diphtheria, and able more readily to traverse the coats of the vessels. Thus a diphtheritic false membrane is composed not of material simply exuded from the blood alone, nor of alterations in epithelium alone, but both the blood and the epithelial tissues have an important share in its production, the epithelial elements taking a far larger share in the regions where they are normally stratified than where they exist only as a simple layer; and in the former regions it can be shown how (except in a few rare instances, where the inflammatory exudation seems to pass through the epithelial strata almost *ab initio*) the false membrane is primarily of purely epithelial origin, how it becomes more and more mingled with products of exudation, which finally almost wholly compose it. The suggestion, too, is thrown out that cases of death from asphyxia in children, which may occur in the very early stages of the disease, do so by the glottis becoming occluded by the mere preliminary epithelial swelling in addition to the submucous hyperæmia, before the process has reached the stage of actual membrane-formation.

Whilst, moreover, no anatomical basis of distinction exists between diphtheria and croup, neither can any difference be established between the pseudo-membranous products fol-

lowing experimental irritation and those due to the poison of diphtheria. Nay, more than this. M. LELOIR declares that the same anatomical identity underlies all membranous inflammations of the mucous membrane, whether this be in "herpetic angina," in "pellicular" tonsillitis, mucous patches, chancres, &c. And if this be true, we have here only another illustration of like effects following a multiplicity of causes. It is surely far better to interpret facts in this light than to seek in the mere effects of disease for the differences which lie deeper in the organism—viz., the nature and mode of evolution of the so-called "irritant" (in its widest sense) that is at the root of the manifestations. The concluding paragraphs of this paper are taken up with a comparison between these processes and those of pustular eruptions on the skin, but space forbids our entering on the interesting and suggestive inquiries there opened.

ONE of the great therapeutical problems, if not the greatest of such problems before the profession in our time, is the treatment of chronic disease, and of those constitutional faults which underlie chronic disease. If the general practitioner will take his list of patients and write down in a corresponding list the names of each of their diseases, he will be surprised to find what a large proportion of his work has reference to disease that is not acute, and to ailments rather than disease. This impression is got from practice only. In a hospital the medical student sees a severe class of cases, medical or surgical, representing accidents and emergencies and exceptions, rather than the ordinary "ills that flesh is heir to." But he will not have been long in practice before he finds out how different is the set of facts and failings with which he now comes to deal, and how much his peace and satisfaction as a practitioner depend on the intelligence with which he can formulate a judgment with regard to them. He will find his nosological list will not run so much in the heroic style, such as pneumonia, fevers, cerebritis, and peritonitis. It will take less acute forms—as dyspepsia, phthisis, albuminuria, lithiasis, constipation, hæmorrhoids, hæmaturia, epilepsy, diarrhœa, shock, diabetes, cardiac faults, cancer, gout, &c. An acute case or two no doubt give a practitioner much trouble and anxiety for a few days, but such cases are soon over, and the general principles upon which they are to be treated are now pretty well matters of agreement. But with chronic derangements it is otherwise, and unless their significance be quickly and intelligently apprehended the patient drifts into disease, and often into dissatisfaction either with the medical art itself or with the practitioner who in the particular instance represents it. In the latter case he appeals to another practitioner, who brings the disease under definition, and perhaps detects its relation to a cause—a diathesis, or a habit, or a calling. He immediately figures as a superior practitioner, and invidious comparisons are instituted between one physician and another, when with a little more care and thought no occasion need have been given for such comparisons.

We urge the importance of attention to chronic forms of disease from a conviction that it will yield satisfactory results both in a scientific and a practical respect. The drift of our contention may be thus expressed: first, that much of the disease that shortens and embitters life, where not altogether functional, is chronic—degeneration rather than disease; secondly, that there is reason to believe that the rate of such degenerative processes admits of being quickened or retarded; thirdly, that the indefinite retardation of a degenerative process is practically the extension of life to its natural limits, and the next best thing to a complete cure; that this retardation has come to be a prime function of scientific and practical medicine. We have not space for the elaborate discussion of these several propositions, but they are important with reference especially, be it noted, to the element of *time*, which, as the late Dr. STOKES used to say, constituted so important a factor in disease. Cases are recorded in which even cancer has extended over a period of twenty years or thereabouts. The question upon which light is needed is—Why did the cancerous process in these cases occupy so long a time? What was the condition of the patient, of his temperament, or circumstances, or diathesis, or of his medical treatment, which may be held to have exercised a retarding effect upon an intensely morbid degeneration? Surely if cancer can be extended over twenty years, the time may come when it may be extended over thirty, and practically cease to be a cause of premature death. And of course, if a case of cancer can be so protracted, it is still more reasonable to hope that less intense and virulent degenerations—such as tubercle, or fibrosis, or atheroma—may be so extended. What we urge is that the accomplishment of this extension is not only a part of the science and practice of medicine, but is a most urgent and withal hopeful part of medical work.

Chronic disease and slow changes are too apt to be left to drift, or regarded both by the patient and the practitioner as matters for domestic treatment. Can anything be more unreasonable? We are persuaded that the growth of general intelligence and education will convince the public that, apart from their acute illnesses, the confirmation of health and the strengthening of weak points in the physical system are to be looked for from ever-advancing physiology and medicine. We do not think that this great service of medicine is likely to be accomplished mainly by individual remedies, or by mysterious specifics. Medicines may contribute most importantly to it; but undoubtedly it will be done by Medicine rather than by medicines—by an intelligent use of all those means whereby glands and bloodvessels are preserved in their integrity and blood in its purity, and by bringing life to a close accordance with the laws of health and hygiene. Of late the interest of physicians has been largely devoted to pyrexial disease, to complaints attended by high temperature, acute phenomena, and urgent danger, and this with great advantage. Surely so, when one physician alone has been able to record 120 cases of uncomplicated pneumonia without a death. But meantime slow processes of disease are regarded with little more than pathological interest, whereas, if we be right in our views, they promise a field of hopeful and creditable work for the physician.

THE death has been announced of Professor Buhl, the value of whose researches into the histology of tubercle especially has been universally recognised by pathologists.

Annotations.

"Ne quid nimis."

THE METROPOLITAN HOSPITAL SATURDAY.

WE are very glad to see that the promoters of the Hospital Saturday movement in London are hopeful of a greater success than in previous years. This is a most modest expectation, and we devoutly hope it will not be disappointed. The fact is—and it ought to be very plainly stated—that the Hospital Saturday collection hitherto has been a thoroughly inadequate business. As the annual offering of the working-men of London to hospitals, from which they and their families derive enormous and almost exclusive benefits, whose doors are always open to them night and day, the five or six thousand pounds raised by the wage-earning class in the whole year are simply discreditable. We do not mean to blame the working-men themselves entirely for this, nor do we wish to blame anybody; but somebody must be at fault—either the working classes themselves or the Board of Delegates—for not devising an organisation or a scheme whereby more than about five thousand pounds can be extracted from them for this great cause. We are persuaded that such a sum does not in any way represent either their gratitude or their judgment in the matter. A collection on one given day seems to be an imperfect way of reaching them. They want the object brought home to them more forcibly and more directly, and they want to be asked for a repeated and even a systematic contribution. It is ridiculous to think that the working-classes of London, who are capable of so much organisation for political and economical purposes, are doing either themselves or the hospitals justice by such collections as have as yet been realised. One glass of beer a day less for a week would make a splendid improvement. The hospitals are very needy; some of them have to close many of their beds. It is a time for a great effort, and even for some personal sacrifice. The Hospital Sunday Fund has this year exceeded its last year's subscription by five thousand pounds. We shall be disappointed if the Hospital Saturday Fund does not do likewise.

THE EDUCATIONAL VALUE OF MUSEUMS.

DR. GUNTHER'S address, delivered before the Biological Section of the British Association for the Advancement of Science, will have the effect of calling the attention of the public at large to the high value set upon museums as a means of instruction even by those who are our pioneers in matters of science and art. A saying that has become trite is almost of necessity true also; and scarcely a day passes but each of us has an opportunity of recognising that

> "Segnius irritant animos demissa per aurem
> Quam quæ sunt oculis subjecta fidelibus."

The collection of modern works of art, quasi-technological as it is, which was established by the late Prince Consort at South Kensington, and which took its origin in the Exhibition of 1851, is the most striking example of the solid value which a museum may have for a nation at large. It is not too much to say that in the thirty years which have elapsed since the first Exhibition we, as a nation, have gone from near the bottom to very near the top of the class in matters of domestic art; and no one will doubt that this result is mainly attributable to the collections at South Kensington, and to the science and art classes established, as it were, for the purpose of teaching how excellence, such as is manifest in the articles exhibited in the museum, is alone attainable. We have conclusively proved that "taste," a faculty which our fathers believed to be the exclusive property of the French, is more a matter of education than a question of in-born national genius.

It is to be hoped that the Biological Museum at South Kensington, now about to commence its career, will bear fruit as abundantly as has the neighbouring Museum of "Science and Art." As far as the museum itself is concerned there is every prospect that it will approach perfection. Miles of shelves, plenty of light, hundreds of thousands of specimens, and men who comprehend the science of arrangement and the art of display, are the factors necessary for the formation of a museum, and all these factors have converged at the Biological Museum of South Kensington. The central hall of the new building is to be devoted to an Index Museum, wherein the student may obtain a comprehensive bird's-eye view, as it were, of the domain of Biology before commencing his more detailed explorations in that particular branch which may most interest him. This should be an essential feature in every museum, and in a museum devoted to so wide a subject as Biology it is indispensable. It is to be hoped also that no parsimony will be shown in the matter of the library, which Dr. Günther rightly insists is a necessity for the new museum. A museum without a library is an absurdity, and it is almost inconceivable that so grand a building, reared at so vast an expense, should not contain an element so absolutely requisite for its utility. This omission will cost the nation an addition of about £100,000, and the library, when established, will probably be in an out-of-the-way corner, instead of in the most accessible spot possible. We should like to know who it is that is really responsible for this blunder, and it would be interesting to be informed of the history of the new museum, and what kind and what amount of counsel was taken with the scientific advisers (if there be any) of the Treasury before the architect was instructed to set to work at his plans. Some years ago a great railway company built at a cost of £80,000 a magnificent new station in a large provincial town, and it was not till the foundations were dug that it was discovered that no space had been allotted for a booking-office, and this omission seems to us to be scarcely less glaring than the omission of the library from the Biological Museum at South Kensington. A library is the very heart of such an establishment, and without one the new museum can be nothing but a veritable valley of dry bones. It is to be hoped also that demonstrations and lectures will be given in the galleries of the new educational establishment, and that, like its sister-museum, it will be instrumental in furnishing a stimulus to biological studies which will be felt throughout the length and breadth of the country and will pervade all classes. The Museum of Science and Art has made us the rivals, if not the superiors, of the French in matters of art. We hope that the Biological Museum will do something to bring us alongside our German brethren in matters of science.

DERMATOLOGY IN AMERICA.

IN our recent comments on the death of the Baron von Hebra, we noticed the marked influence he exerted in encouraging in America the study of the branch of medicine which he made his special field; and a recent notice of the fourth annual meeting of the American Dermatological Association, and the receipt of the Transactions of the third annual meeting (edited by Dr. R. W. Taylor), induce us to direct attention to the erudite and well-written address of last year's President, and to the character of the work in dermatology emanating at present from America. Professor Duhring of Philadelphia took for the subject of his address the "Rise of American Dermatology," and traced in a most interesting way the progress of the study of this subject from the time when it was "an obscure and neglected branch of medicine" until the present period. Up to 1836, when the establishment of a special Infirmary for Diseases of the Skin in New York and a delivery of a

course of lectures marked the increasing interest in the subject, notwithstanding the appearance of translations of the works of Willan, Bateman, Cazenave and Schedel, and occasional scattered meritorious memoirs, dermatology was in an utterly neglected state. From this time, however, American students flocked to the world-renowned Hôpital St. Louis, which for some years impressed the stamp of its teaching on their papers. There was an increasing demand for translations of the best European works, and from 1853 special clinics at the different dispensaries and hospitals were established. It was at this time that Hebra's reputation and the growing School of Dermatology at Vienna began to attract the crowds of American students, who, without neglecting the importance of the vast material accessible at Paris, now spent most of their time at the former city. On their return to the New World, stimulated by Hebra's example, imbued with his spirit, and fortified by his teaching and their devotion to the subject, these physicians found lectureships and special clnics gradually constituted for them at almost all the first-rate universities, hospitals, and dispensaries where they could pursue their work, so that at the present time America can look with pride at the numerous band of workers who are contributing year by year papers of first-rate importance on Dermatology, and advancing its studies in a thoroughly scientific spirit. We must especially congratulate our American brethren on the establishment of a first-class journal devoted to dermatology, on their complete union, and the harmony with which they work together, as seen in the foundation of their association and the meetings of the New York Dermatological Society, as also on the recognition of their position by the profession in America as earnest and thorough workers. All this reminds us of the need for examination of the state of things at home, which certainly compares unfavourably with that abroad; for, notwithstanding the important works of Willan, Bateman, Plumbe, Thomson, Wilson, and others, and the recent earnest teaching of Tilbury Fox, the vast material which Great Britain and her dependencies affords for the study of skin diseases is not well utilised; and there is no union for the furtherance of work, as seen in America, or as exemplified in the newly-constituted society, for fostering the study of diseases of the eye in this country. We hope the day is not far distant when in the land of Willan may be seen an earnest band of workers devoting themselves with one accord to the study of this branch of medicine.

STATION HOSPITALS IN INDIA.

THE Government of India have for some time past had under their consideration the advisability of establishing General Station Hospitals for their troops, British and Native, instead of the present Regimental ones; and, under instruction from Government, the Commander-in-Chief has recently issued orders authorising the Surgeon-General of H.M. British Forces in India to introduce the Station Hospital system at certain garrisons in Bengal. It is ordered that the existing hospital and other buildings are invariably to be made use of, the present empty condition of the Indian Exchequer forbidding any present outlay for new works. We cannot but express our satisfaction at this contemplated change in the organisation of our military hospitals in India. Whatever may be the divergence of opinion amongst military men as to the relative merits of the Regimental or the Station Hospital systems, there can be no doubt that as the latter has now for several years been successfully worked at home, and in all parts of the globe except India, that country should be brought into unison, so far as climate and general surroundings permit, with the hospital arrangements that are ordered for the Army generally. The introduction of the Station Hospital system will effect a considerable saving in medical establishments generally, not only in the cadre of the medical officers detailed for duty in India, but in medical subordinates, hospital servants and attendants, surgical instruments, medical stores, clothing and equipment. It is patent that the aggregation of the sick into one or two buildings, instead of being spread out into the numerous small units of Regimental hospitals, must conduce to a large financial economy; and if the details of organisation are carefully and judiciously worked out by the responsible head of the Medical Service in India, there can be no reason why the Indian military hospitals should not, both for the comfort and care of the sick, be as successful as are our own in England. In Afghanistan General Field Hospitals have been adopted from the commencement of the campaign, and with signal benefit; so that the system, tried in time of war, and with all the disadvantages of such a climate and country as Afghanistan, should readily prove its superiority when introduced under more favourable conditions.

OIL OF EUCALYPTUS.

IN the *Deutsche Medicinische Wochenschrift*, No. 30, Dr. Siegen of Deutz narrates some of the results he has obtained from the use of the oil of Eucalyptus globulus in antiseptic surgery. He was induced to experiment with it at the suggestion of Professor Binz, and since 1872 has carried on his investigations of its antiseptic properties. He prepares the solution of the oil by dissolving three grammes in fifteen grammes of alcohol, and diluting with 150 grammes of water. In this solution he soaks ordinary gauze. This dressing is applied in the wet state, covered with the usual gutta-percha tissue, and the whole kept in position by means of gauze bandages. Thus prepared, the eucalyptus gauze does not appear to irritate or produce eczema upon even sensitive skin, and is perfectly antiseptic.

In one case of a child with caseous glands of the neck Dr. Siegen operated—first dipping the instruments in a 2 per cent. solution of the oil and washing the surfaces with the same—by scooping out the contents, draining, and applying a wet eucalyptus dressing as above described. Although the spray was not used in this case, the discharges which had penetrated the gauze were quite sweet upon the third day. The slight amount of pus remained odourless, and on the eighth day the cavities had contracted and healed. In a second case, of a child with right genu valgum, he removed a wedge-shaped portion of the tibia, and after fracture of the fibula and proper adjustment of the bone, dressed with eucalyptus gauze, using the thymol spray. The bone wound healed forthwith, and on the tenth day after the operation only a superficial strip of granulations remained.

In a child with purulent inflammation of the elbow-joint and fistulous openings, Dr. Siegen performed resection of the joint under the thymol spray, and after washing out the wound with an 8 per cent. solution of chloride of zinc, dressed with thymol. The discharges from the wound remained, however, still offensive and profuse, whereupon he changed to eucalyptus dressings, having in the first place washed the surfaces with a 1 per cent. solution of permanganate of potash. After the first dressing the secretion of offensive pus ceased, and the wound rapidly healed.

His fourth case reported was an abscess of the knee, which was similarly treated, and with equally favourable results.

Dr. Siegen's experience has taught him that a 5 per cent. solution of oil of eucalyptus may be employed without any drawbacks. Dressings prepared with this solution may be left undisturbed for four or five days, whilst the 2 per cent. solution dressings remain aseptic for three days.

Dr. Siegen's researches confirm those of Schulz, published in the *Centralblatt f. Chirurgie*, 1880, No. 4, on the use oil of eucalyptus in antiseptic surgery.

MEDICAL EDUCATION IN THE UNITED STATES.

IT is very gratifying to see in the United States indications of dissatisfaction with the low and lax requirements of many of the schools, which in number exceed anything we have to complain of. Every State has several medical schools and boards. The period of education is short, and the examinations are of most various degrees of efficiency; there is not, as with us, any uniform requirement that the student, before commencing medical studies, shall have passed an examination in preliminary education. But many schools lately have made it a condition of admission that entrants must pass such an examination, and they deserve great praise for making such a stand. This step may temporarily reduce the number of their students, but the permanent effect must be advantageous. It would be exceedingly desirable to have published annually a list of those schools which require a preliminary education, and those which do not. Amongst those which do we may mention Bellevue College, New York, the Harvard University, and the Michigan Medical College. There is a disposition not only to secure that entrants into the profession shall have the necessary mental qualifications, but also to extend the period of medical study, which in many of the schools is very short. We would impress on the friends of sound medical education in the States the urgent necessity of reducing the number of competing schools and boards. If this cannot be done, the only other remedy of a great evil will be the creation of an Association of colleges which make medical education and examination a serious business, and from which all loosely conducted institutions should be excluded. There is already an association with this object, but we should be glad to know to what extent it has succeeded.

FŒTAL ENDOCARDITIS.

THE recognition of fœtal endocarditis during intra-uterine life is a diagnostic achievement worthy of note. A girl aged seventeen was admitted into Professor Peter's ward at La Pitié near the end of her pregnancy. An active fœtus could be felt in the uterus. The double sound of the fœtal head could be heard in the usual situation, but instead of the customary *tic-tac* the first sound was replaced by a blowing murmur, almost immediately succeeded by a sharp sound like the normal second sound, and this was followed by a brief silence. The series was repeated about 130 times a minute. At first the interne, M. H. Barth (who records the case in *La France Médicale*), thought that the murmur was that described by Naegele as due to the compression of the umbilical cord, but its precise limitation to the area in which alone the sounds of the fœtal heart were heard, and the absence of any uterine contraction which could cause the compression of the cord, convinced him that the sound must be due to a lesion of one of the cardiac orifices. The murmur was again heard next day, when the labour was actually commencing. The child was born dead, having apparently died during the last period of labour. The child was well-formed, and the organs were healthy with the exception of the heart, which was enormously hypertrophied, and seemed alone almost to fill the thoracic cavity. It was nearly globular in form, the right half being much larger than the left. The valves on the left side of the heart, and those of the pulmonary artery, were healthy, but the tricuspid valve was the seat of a "plastic vegetative endocarditis," the free edge being thickened, covered with projections, and its upper surface being uneven. The chordæ tendineæ were shortened and thickened, maintaining the valves in contiguity to the walls of the ventricle, so that it was impossible for them to fulfil their normal function. The right ventricle was dilated and greatly hypertrophied.

The case has a practical lesson. The labour offered no difficulties to which the death of the child could be ascribed, and it was doubtless due to the cardiac lesion. In such a case, in which fœtal endocarditis has been diagnosed, the acceleration of the labour by all possible means is desirable, to afford the child a better chance of life. The mother it may be noted, had never suffered from rheumatism, and presented, in her history, nothing to which the fœtal condition could be ascribed. Whether she had suffered from syphilis is not noted.

FEEDING TO LIVE, AND LIVING TO FEED.

THE chemistry and, what may be called, the "physiology" of food and feeding compose a subject which is, of course, trite to the profession, and has been made almost tedious to the public. Nevertheless, we venture to offer one or two remarks for general consideration. The points to which they relate have possibly been overlooked in the attention given to matters which appear to possess claims of higher importance. First, there is an essential difference between appetite and hunger. Appetite is the result or expression of a number of longings or desires which do not necessarily indicate a systemic need of nourishment. Here appetite *may* indicate organic need, but, if so, the organ in which the requirement exists is the stomach, and it is quite as likely that the viscus demands the food for its own functional purposes, as to pass it on to the system generally. The notion that appetite is a low degree of hunger, and hunger an intensified form of appetite, does not seem to be borne out by facts. The two desires or longings are different in their nature. Appetite is the craving of the apparatus of taste, and sometimes of the digestive organs; while hunger is the demand of the organism as a whole or of some of its parts for food. Use the words appetite and hunger how we may, there are actually two needs to be expressed, and much mischief arises from confounding them. The one cry for food which we call appetite is an affair of habit or caprice, and may, for a time at least, be stimulated by appealing to the sense of taste, or promoted by certain cordials and stimulants; but, looking at the matter from a physiological point of view, it is difficult to see what we gain by exciting the organs of digestion to take food unless the system is in a condition to receive it. The rational mode of procedure would seem to be to wait the expression of a need arising in the system—in short, to look to hunger rather than appetite as an incentive to the act of feeding, instead of exciting the palate and sense organs to take food when we have no organic reason to suppose that there is an inner need of it. There are certain evil consequences of the civilised mode of feeding by appetite, on the basis of habit, which it may be useful to point out. First, separating appetite from hunger, and developing it as an independent sense or function, there naturally springs up a fashion of life which may be described as "living to feed." The purveyor of food trades on the tastes and cultivated longings of the consumer, and the consideration what to eat and what to drink comes to occupy a place in the self-consciousness which it was probably not intended to fill, and in so far as this is the case man is more animal, and less spiritual and intellectual, than he ought to be; although it may be conceded that the refined taste of the cultivated nature is less offensive than the simple voracity of the savage. There are some who contend that man is the gainer by the development of his appetite. If this be so, the gain is a good not unmixed with evil. Another drawback is, that by severing appetite from hunger we lose the indication of quantity which nature gives with her orders for food. The man who eats a regulated number of meals daily with a duly stimulated and organised habit, probably eats much more in the twenty-four hours than his system requires, or the organism as a whole is constituted to deal with. The organs of digestion and

assimilation are overworked, and hence, doubtless, many of the most troublesome diseases. A glance at any table showing the length of time which the commonest articles of food take to digest will show that the fashionable stomach can scarcely ever be empty. Again, so much solid food being taken, or, which amounts to the same thing, small quantities of food being deposited in the stomach so frequently, an artificial system of "flushing" becomes necessary, and a considerable amount of fluid is "required," not because the system needs *water*—which is the only liquid it actually appropriates, let us dose it with what we may,—but because the apparatus of digestion cannot perform the task imposed upon it except by the aid of fluid to moisten its surface and free the mechanical reservoirs from the *débris* of food with which they are encrusted. Moreover, this artificial appetite tends to the amplification of bulk in respect to food. The quantity of each description of food taken is diminished, because the meal is subdivided to suit the taste; but the total bulk is increased. We do not say the weight of food consumed is greater, but its substance is extended by the multiplication of dishes and sauces, so that the points of contact—the stimulating superficies of the food, so to say—are extended. It should not be forgotten that hunger is the natural expression of organic need; while appetite may be, and generally is, the pampered product of cultivated modes and habits of existence. Appetite in its development tends to living to feed, while with the guide of hunger a man only feeds to live.

A CONSTANT BATH TREATMENT OF FEVER.

DR. REISS, of Berlin, has proposed the employment of the bath in the treatment of typhoid and other febrile diseases, in a somewhat novel form. The antipyretic effect of brief and powerful refrigeration is often transient, and at the height of the disease hourly or half-hourly baths have to be employed. It is proposed, therefore, to employ a continuous but slighter refrigerating agent—namely, to keep the patient constantly in a bath of lukewarm water. A temperature of 88° has been found the most convenient. The use of such baths obviously prevents considerable practical difficulties, which are, however, not insurmountable. The patient should lie in a sheet suspended, hammock-like, within the bath, and when the first inconveniencies are over the patients enjoy it, and can be kept in it for a whole day or several days. Dr. Reiss has tried the method in forty-eight cases of typhoid (besides one incompletely treated case). It was used only in pronounced cases, for the most part in the early stage, the bath being commenced at from the third to the twelth day. The temperature was taken every one or two hours, in either the rectum or axilla. As a rule the bath was continued without intermission for the first twenty four hours, unless the fall of temperature was too great. After the second day the rule was followed to take the patient from the bath whenever the rectal temperature was below 99·2°, and to reimmerse whenever the temperature rose above 101·5° F. The results are said to be strikingly good. With the exception of some very obstinate cases, the temperature fell quickly in the bath so as to reach the normal in from twelve to twenty-four hours. On removal, the temperature rose rapidly in the earlier stages of the disease, more slowly in the later periods, so that the intervals between successive baths were at first short and afterwards gradually lengthened. In obstinate cases, in which the bath at 88° F. did not reduce the temperature below 102°, transient cooler baths were employed to keep the temperature down.

In forty-two cases available for comparison, the duration of the bath-treatment varied between seven and thirty-eight days, and was, on an average, 18·2 days. Of the forty-eight cases, three died, giving a mortality of 6·2 per cent. In two of these there was pneumonia. The latter fact seems to suggest that this method is not free from the danger of occasionally doing harm, but the influence of the bath on the other symptoms of the disease is said to have been not unfavourable. The pulse remains frequent, contrasting with the depressed temperature, but it often improves in quality. The most favourable effect is produced upon the cerebral symptoms, somnolence or delirium rapidly ceasing. Any severe pulmonary or intestinal symptoms were absent in most of the cases.

ACTION FOR RECOVERY OF SURGICAL CHARGES IN SCOTLAND.

THE *Dundee Courier* of August 25th gives a good account of an action for recovery of charges by Dr. McCallum, of St. Martin's, in the case of a patient who had sprained her wrist. The patient, being impatient, went off to one of those persons who are apt at discovering fractures and dislocations which have no existence. He diagnosed "dislocation," and the patient declined to pay the charges of Dr. McCallum on the ground that he had misunderstood the case and had charged too high. Dr. McCallum showed his respect for his own diagnosis and treatment, as well as his charges, by taking the matter into the Sheriff's Court. By consent of parties the Court remitted the case for report to Dr. Bramwell, of Perth, who made an able statement of it, and entirely confirmed Dr. McCallum's diagnosis and charges. The Sheriff, of course, decreed for the sum claimed with expenses. The procedure is altogether worthy of consideration and imitation. If County Court judges would, with consent of parties, oftener refer to practitioners of standing, and be guided by their decision, much time and money and good feeling would be saved.

CHOLERA IN INDIA.

WE regret to find by our letters from India received by the last mail that cholera has made its appearance in several stations in Bengal and the North-West provinces. In Lucknow the 13th Hussars and Royal Artillery had several fatal cases in the last week in July. At Moradabad the 2nd Queen's have also had a few cases, though of a milder type; while at Allahabad the 2nd Batt. 22nd Regt. has suffered somewhat more severely, losing ten men and an officer (Dr. Noad, whose death is referred to elsewhere) in a few days. In the Punjab, cholera has also appeared at Peshawur, at Tangi in the Peshawur Valley, and at one or two places in the Khyber. We sincerely trust the troops returning to India from Cabul by this route will not again experience such a severe epidemic as was encountered last year, and which decimated some of our finest regiments, notably the 10th Hussars and 4th Battallion Rifle Brigade, whose losses between Jellalabad and Ali Musjid were terribly heavy.

PEROXIDE OF HYDROGEN AS AN ANTISEPTIC.

OUR attention has been drawn to an omission in an article which appeared in our last number on "The Influence of Peroxide of Hydrogen on Fermentation," by which an apparent injustice was unwittingly done to a distinguished English observer. In noticing the recent researches of M. Regnard on this subject the prior investigations of Dr. B. W. Richardson on the antiseptic properties of the peroxide should have been referred to. As early as 1858, we believe, Dr. Richardson called attention to this quality of the gas; and two years ago, in the Cantor Lectures, delivered before the Society of Arts, he dealt very fully with the question of oxygen and peroxide of hydrogen as preventers of putrefaction. A single extract from Lecture IV. of the series will suffice as an example:—"I took a strong bottle with a thick neck, placed in it muscle of beef, and charged it with ordinary oxygen gas. Then I put into the bottle a measured quantity of solution

of peroxide of hydrogen, introduced the fluid in such a way that it did not come into contact with the meat until a cork was inserted into the neck of the bottle and tied down, after the manner of the cork of a soda-water bottle. The bottle was then turned until a portion of the meat came in contact with the solution of peroxide. With that contact there was rapid evolution of oxygen, and a pressure of gas equal to three atmospheres was produced. In this condition small specimens of beef were preserved through the return voyage [to Rio Janeiro and back] and came home in a state of excellent preservation."

THE DEMAND FOR THE APOTHECARIES' LICENCE.

MR. BRADFORD, in the evidence which he intended to have given before the Select Committee of the House of Commons, naturally made a point of the fact that the licence of the Apothecaries' Society is still in much demand. It becomes interesting to know whether the demand is an increasing or a decreasing one. In answer to our request, Mr. Bradford has kindly furnished us with the following data, giving the average number of persons who, in three successive decades, have taken annually the licence of the Society :—

In the decade 1850–1859	295·1
,, 1860–1869	291
,, 1870–1879	214·9

Making allowance for increase of population, it appears from these figures that the demand for the licence is considerably on the decrease.

THE CANAL BOATS ACT.

MR. GEORGE SMITH, of Coalville, is still dissatisfied with the working of the Canal Boats Act of 1877. In a letter to *The Times* he complains that the measure is in many places little more than a dead letter, though in others it is working satisfactorily. On a visit to one of the midland registration districts a few weeks since, he found the local inspector doing his work well, but outside his city boundaries and within a radius of six miles, twenty-five to thirty boats could be seen unregistered and uninspected, and here overcrowding of both sexes existed as flagrantly as before legislation was attempted. Mr. Smith recommends that the 5*s.* registration fee be made an annual payment, that the school-inspector be allowed to enter the boats, and the children's education be ensured by the use of a pass-book, similar to the plan proposed to meet the case of gipsy children.

AN earnest attempt is being made by several influential inhabitants of Sydney, New South Wales, to establish a Hospital Sunday movement in that city. The principal medical charity there, the Adelaide Hospital, appears, however, to be a purely Government institution, and on this account the proposal has encountered the opposition of the Anglican bishop and others. The advocates of the scheme have now obtained the active co-operation of the mayor (Mr. E. T. Smith) as chairman and treasurer, and this important accession to their ranks is regarded as an augury of their success.

THE following paragraph appears in the *New York Herald* of the 17th ult. :—"Philadelphia, Pa., Aug. 17th, 1880. John Buchanan, dean of the 'Eclectic Medical College,' who was under heavy bail for his appearance before the United States Court to answer charges of fraudulently issuing medical diplomas, ended his career this morning by drowning."

A DISTINGUISHED service reward of £100 per annum has been conferred upon Sir W. M. Muir, M.D., K.C.B., Director-General of the Army Medical Department.

DR. EDWARD B. SINCLAIR, King's Professor of Midwifery in the Medical School of Trinity College, and Physician to Sir Patrick Dun's Hospital and Maternity, has received the honour of knighthood in recognition of the public service he has rendered by training soldiers' wives as midwives.

WE regret to announce the death from cholera at Allahabad, East Indies, on the 31st of July, of Surgeon Hartley J. Noad, A.M.D. Mr. Noad obtained his commission as a surgeon in the Army in August, 1878, and is the first officer who has fallen a victim to the cholera epidemic this year.

DR. BATEMAN of Norwich and Dr. Hack Tuke of London have been elected Corresponding Members of the Society of Psychiatry of St. Petersburg. Dr. Tuke has also been elected an Honorary Member of the American Association of Hospitals for the Insane.

AT the meeting of the Pharmaceutical Conference at Swansea, on the 25th ult., an address and 500 volumes of books were presented to Professor Attfield.

THE fifty-third annual session of the German Naturalists and Physicians will take place in Dantzig from Sept. 17th to the 24th of the present year.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kensington.—Among the reports of Metropolitan medical officers of health, Dr. T. Orme Dudfield's annual reports have long held quite a special position. They treat not only of the health and sanitary condition of the particular district, the parish of St. Mary Abbot's, Kensington, over which he exercises sanitary supervision, but of those numerous general questions which concern Kensington in common with the rest of the metropolis. Hence his reports have a much wider interest than that which attaches to the locality to which they primarily refer, and they form singularly instructive commentaries on questions relating to the general sanitary administration of the metropolis. The experience of Kensington is reported not merely in the immediate interest of that important district, but it is made to serve as a text illustrative of yet unsatisfied requirements, or for elucidating difficult questions concerning the public health of that district and the metropolis at large.

Dr. Dudfield's report for 1879 is now before us. We do not propose to follow him in the careful analysis he makes of the vital statistics of his district; neither do we propose to occupy ourselves with his examination of the causes of death during the year. We shall touch only on a few of those questions of more general interest which he takes occasion to discuss in the course of his report.

And, first, with reference to the atmospheric diffusion of small-pox contagion from the Fulham Small-pox Hospital into localities adjacent to the hospital, including places within the parish of Kensington. Dr. Dudfield enters into this question at considerable length, and is enabled to furnish additional detailed evidence from previously unpublished letters of the medical superintendent, Dr. Makuna, to show that the cases of small-pox which occurred in the localities surrounding the hospital had their origin in the ordinary mode of communication of the disease from case to case, the assumption that the hospital was concerned in the dissemination being wholly gratuitous. The patients attacked, it was found, had almost without exception been visiting localities where the disease was prevalent, or had been in direct or indirect communication with persons suffering from the disease. There seems little doubt, more-

over, that had the Metropolitan Asylum Board, or, perhaps, we should say the Local Government Board, taken the least intelligent interest in this question of small-pox, clear histories of the cases of small-pox in the vicinity of the hospital might have been obtained from the beginning, and the mischievous accusation against the hospital stopped at the outset. But, notwithstanding the warning at Hampstead, where a course was followed similar to that pursued at Fulham and the other small-pox hospitals, and where in consequence the Metropolitan Asylum Board has found it impracticable to rebut the evidence as against the hospital, both the Metropolitan Board and the Local Government Board have been and are determined to treat the question as a mere Poor-law question. The latter Board has not recognised a public-health duty in the matter, although the Central Public Authority, and the former Board, encouraged by the Central Board, has treated it on the purely parish basis. "The presumed extension of disease beyond the precincts of the hospital concerns the next parish and not ours"; and to this view of the question the Local Government Board has assented. We see the results of this short-sighted policy in one form in the Hampstead Hospital case; other and not improbably graver forms will, we fear, follow.

Dr. Dudfield discusses the attempt of the Government to deal with the question of hospital accommodation for infectious disease in the metropolis by Section 15 of the Poor-law Act, 1879, which enables the Metropolitan Asylums Board to contract with vestries and district boards for the admission of patients into their hospitals. The provision has practically failed, and must fail, Dr. Dudfield holds, until pauper and non-pauper patients can be clearly discriminated. Dr. Dudfield is disposed to represent the vestries and district boards in a very virtuous light in the discussion, but his account of the matter reads to us much more like an ingenious evasion by those bodies of an important duty, such as the metropolis has been familiarised with since 1871-72, than action worthy of being attributed to higher considerations. However this may be, this is quite a subordinate matter in view of the relation of the Poor-law authority to hospital administration for sanitary objects. Sanitary authorities have certainly serious grounds for holding aloof from Poor-law administration, and we agree with Dr. Dudfield that until the hospital treatment of infectious diseases is severed from Poor-law administration the question at issue will never be satisfactorily solved.

Dr. Dudfield's observations, tending to show the necessity for legislation to ensure in the metropolis the compulsory disclosure of the occurrence of infectious diseases, deserve careful consideration.

We must pass over several general questions without remark, and we say, in conclusion, that as a description of what is involved in the sanitary administration of a metropolitan district, this report is of the greatest interest.

Sidmouth.—Dr. Pullin's report for 1879 shows a birth-rate of 20·30 per 1000 of the population, and a death-rate of 20·00 per 1000. In plain figures, the births exceeded the deaths only by 2; and the rate of mortality of this beautifully situated place, on the south coast of Devon, with its diminutive population of less than 4000, came perilously near to that of a large town. It is well-known that the sanitary authority of Sidmouth have been so content with the natural advantages of the position of the town, and the high reputation of its medical officer of health, that they long held any serious efforts for maintaining the wholesomeness of the place superfluous. Not long ago, however, they were stimulated to take a somewhat more rational view of their functions and duties by the Local Government Board, acting upon local complaint; but, small as the place and the population are, there is, according to Dr. Pullin's report, a good deal of sanitary work to be done in it before it can offer fully those local conditions of wholesomeness which visitors to health-resorts should desire in their individual interest. With abundant excellent water accessible, it is by no means certain that the occasional visitor may not have to drink water from wells polluted with sewage; and it would appear that 400 of the population—that is to say, one-tenth—are dependent for their water-supply upon "a single hand-well, inconveniently remote from most of them." It is proposed to lay down 1466 yards of sewerage, which being done will secure to the town, Dr. Pullin states, a drainage so complete and efficient that nothing will be left to be desired; but which left undone shows how exceedingly inefficient the sewerage of the town has been and must continue to be until the projected works are completed. Moreover, no precautions appear to be taken to cut off the direct communication of the house drains with the sewers; and, strange to say, the "D" trap is regarded with approval, even by the medical officer of health. The sanitary condition of cottages would appear to be receiving detailed attention, and Dr. Pullin states that closet accommodation, "generally speaking," is "satisfactorily provided." He adds, however, that "the exceptions have been again and again brought to the notice of the [Local] Board, and as their absence continues to prove a serious nuisance to tenants, their immediate erection should be insisted on." Their absence proves also the apathy of the Local Board to the true sanitary interests of the place. Nuisance from piggeries and slaughter-houses has been diminished, but not done away with; and it might be inferred from Dr. Pullin's phraseology that in these matters the Board had to deal with piggeries and slaughter-houses as numerous as the ordinary houses of the town, instead of a few places, nuisance from which ought not to have required three months in dealing with effectually.

REPORTS OF POOR-LAW MEDICAL OFFICERS.

Dr. Alfred Sheen sends us a copy of his annual medical report, 1879-80, to the Cardiff Board of Guardians on the workhouse and schools of the Union. It is somewhat unusual, we believe, for reports of this nature to be printed and issued, but the practice now followed at Cardiff might be usefully copied elsewhere. Dr. Sheen's report gives an interesting account of the movement of patients in the workhouse, and touches upon several matters of interest relating to the medical administration of these institutions. He writes of the Cardiff workhouse as losing much of its original intention as a test of poverty, and becoming to a very large extent an institution for the treatment of sick paupers; and he observes with reference to this state of things, that "it behoves those in authority, in the interests of the sick poor, and so indirectly of the ratepayers, to facilitate the recovery of these sick paupers by every means in their power." The Cardiff guardians are acting upon this view of the subject, as exemplified by the erection of an excellent hospital and the appointment of a staff of paid nurses. Referring to the question of the use of stimulants in workhouses, Dr. Sheen remarks: "The discussion has tended to do good where it has awakened medical officers to a greater sense of their responsibility in this matter; but to attempt to treat many cases we get in a workhouse infirmary without stimulants is, to say the least of it, harsh and unfeeling."

THE SANITARY CONDITION OF WHITEHALL.

Our contemporary the *Builder* has been directing attention to the state of drainage of Whitehall and the district of Westminster generally. Of its own knowledge it speaks ill of the subsidiary drainage of the low-lying parts, and, on the authority of Sir Joseph Bazalgette, it takes exception to the principle on which the main-drainage of the district has been carried out. It holds, in fact, that "a reconsideration of the drainage of Westminster is a matter of primary importance in the behalf of the public health"; and although when a question was asked in the House of Commons on this subject Mr. Adams answered that it was matter which rested with the Metropolitan Board of Works, and not with the Government, we should have thought that the Government had at least sufficient personal interest in it, so far at least as Whitehall was concerned, not to put it lightly aside or to leave it to the good-will and pleasure of the Metropolitan Board of Works without an expression of opinion, if the allegation were correct. Moreover, there was more involved in the question than Mr. Adams admitted. In regard to main-drainage, no doubt he was right in saying that it was a subject in which the Metropolitan Board of Works was concerned; but in regard to subsidiary drainage he was judiciously silent. The subject arose out of the illness of Mr. Gladstone and the rumours that gained prevalence at the beginning of his indisposition that he was suffering from typhoid fever. It was curious to note how very generally this suspicion was roused simply because the Prime Minister occupied one of the houses in Downing-street. It seemed to be taken for granted that the drainage of the buildings there must necessarily be defective, not because they were old buildings, but because they were under the direction of a Government department. There appears to be much more of sound reason in this argument than is commonly understood. It is believed that the massive pile of buildings forming the new Government

offices is a marvel of bad sanitary arrangement and drainage. It is known that the defects in the office of the Local Government Board have been of the most serious character, and it is to be inferred that they still continue to be so, for it is found necessary to keep the corridors of this portion of the new building charged with carbolic acid to an extent positively sickening to not a few members of deputations who have had the misfortune to visit Mr. Dodson lately. If this be the state of things in the new buildings, what may be inferred of the drainage arrangements of the old, built at a time when sanitary requirements were in vogue of a much cruder kind than ought to be tolerated now? If Westminster, whether old or new, has much of its drainage arrangements carried out in the same fashion as Whitehall and the Government buildings there, the question at issue covers wider ground than the Metropolitan Board of Works can deal with, and is one that in the interest of the Government, the Legislature, and the inhabitants of the district in general, it would be well to submit to public inquiry.

THE METROPOLITAN WATER-SUPPLY.

Colonel Bolton, R.E., the water examiner, in his report on the state of the water delivered by the Metropolitan Water Companies in July, says of that derived from the Thames, that although there were not more than twelve days in which the stream was free from turbidity, the filtration was generally efficient, and the filtered water clear, if not bright. In previous reports Colonel Bolton has discussed briefly the question of a "standard of filtration"; in this report he refers to the desirability of instituting a "standard of quality." He devotes, moreover, a part of his report to the brief consideration of the negligence of householders in the storage of water, and particularly the filthy condition in which cisterns are too commonly kept, especially as observed in the tenemented and cottage class of houses. He alludes to the illustrations of this neglect which may be so abundantly observed from the windows of the trains on many of the lines of railways leaving London. And he directs attention also to the frequency with which the waste-pipes of cisterns are directly connected with sewers, and to the liability to pollution of the water with sewer-air in consequence. These are very old and very scandalous defects, but in the state of sanitary administration in the metropolis we see little hope of their being amended in detail except by the general extension of a "constant" water-service on the one hand, and the adoption of buildings' bye-laws by the local authorities on the other. A very gradual extension of the "constant" service is taking place, and we live in hope that some day even a metropolitan sanitary authority may awake to a reasonable understanding of the magnitude of the health interests involved in the question. It rests chiefly with the local authorities to secure the boon of a constant water-supply for the metropolis, and to get rid of those scandals of domestic storage which too often converts the filtered and deep well-water distributed by the water companies into a filthy, disgusting fluid—disgusting alike to taste and smell.

THE DRAINAGE OF WORKHOUSES.

When last week we had occasion to notice the circular recently issued by the Local Government Board on the drainage of workhouses, we fell into the double error of under-rating the capacity of Boards of Guardians for going wrong, and of over-rating the power of the Local Government Board in setting them right. We learn that the Chester Board of Guardians have within the past two years erected a new workhouse, and that this building is quite a marvel of structural perversity. Hardly had the occupants been installed before the building began to fall to pieces; and this state of things above ground proves to be paralleled by the condition of things below ground. The drainage is, indeed, reported to be in so bad a state that the Local Government Board has had to interfere, using the imperative powers it holds in reserve for wilful guardians. The Chester Board "grumbles" at being victimised in a new building for which it alone can be responsible, and for which it has paid £40,000. It will be interesting to know by what miracle of ingenuity this extraordinary muddle can have been brought about, and the various presumed checks or powers on careless Guardians evaded. We hope some member of Parliament in the course of next session will ask for information and papers on the subject. First, there are the Guardians, then there is the general inspector of the Local Government Board, that Board itself, and *its* architect, all of whom must have a hand in the matter before the local architect and contractor can proceed with the building, and yet the result may be as reported. Evidently the outer world of ratepayers has not penetrated much beneath the surface of the mysteries which surround local and central Bumbledom.

REMOVAL OF PATIENTS TO SANITARY HOSPITALS.

Considerable trouble would appear to have been experienced at Chesham, in Bucks, during a recent prevalence of fever, in inducing patients to be removed to the sanitary authority's hospital. Particularly it has been found difficult to persuade parents to have young children removed. We infer from the local journals that much of this difficulty has arisen from the sanitary authority having allowed their hospital, during a period of freedom from infectious disease, to get out of repair, and so to become prejudiced in the eyes of the community. This should be a caution to authorities possessing hospitals. At the best people are not eager to avail themselves of these hospitals, and no needless antipathy should be created against them. These institutions are new to our communities, and the latter have not had time to become acquainted with the advantages to be derived from them. It is surprising, however, in how many instances, where thoughtful care has been used, the objections to entering sanitary hospitals have been overcome. It should never be forgotten in respect to children that Dr. Ashby of Grantham succeeded during a recent epidemic of scarlet fever in prevailing upon parents to make large use of a tent hospital erected by the sanitary authority on his advice.

Dr. Hardwicke recently held an inquest in Coldbath-fields Prison on the death of an individual who had been removed from his house at Fulham in a dying state under an order of the magistrates, and in consequence of proceedings of the sanitary authority against him in that his house was unfit for occupation. The Coroner observed that the case was a very cruel one—an expression of opinion in which the jury concurred.

It is reported that recently considerable alarm was caused in the parish of St. George-in-the-East by the sound of an explosion in the common sewer. It was subsequently ascertained that this had been produced by the sudden closing of a penstock at one of the storm overflow outlets. The concussion of air thus produced was so great as to disturb some of the work at a side entrance of the sewer.

The Local Government Board for Ireland have urged upon the Waterford Board of Guardians the necessity of adopting prompt measures for improving the sanitary condition of Mooncoin before the winter sets in; and have acquainted the guardians that application can be made for a loan for that purpose under the provisions of the Public Health Act, as suggested by the dispensary committee.

A common lodging-house keeper was recently charged at Stratford-on-Avon with having infringed the bye-laws of the urban sanitary authority. His house was licensed for 21 lodgers, but on an inspection was found to contain 50. He pleaded in defence that during the harvest season lodging-houses had to be conducted on "Irish notions."

The Health Committee of Liverpool have recommended that the Town Council should seek the assent of the Local Government Board to a proposal for the erection by the Council of artisans' dwellings, to meet the domiciliary necessities of a large number of poor people who have been dislodged from the foul corner called Nash Grove.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The increase in the rate of urban mortality last week may again be considered due to the fatality of summer diarrhœa among children. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 5041 births and 3605 deaths were registered last week. The births were 144 below, whereas the deaths exceeded by 330, the average weekly numbers during 1879. The deaths showed an increase of

115 upon the number returned in the preceding week. The annual death-rate per 1000, which in the preceding week declined slightly, rose again last week to 25·1, which was the highest rate recorded during the current quarter. During the past eight weeks of the quarter the death-rate has averaged 22·7 per 1000 in these twenty towns, against 25·4 and 17·8 in the corresponding periods of 1878 and 1879. The lowest death-rates in the twenty towns last week were 16·4 in Bristol, 19·4 in Oldham, 20·9 in Plymouth, 21·0 in Portsmouth, 21·2 in London, and 21·4 in Brighton. The rates in the other towns ranged upwards to 32·9 in Manchester, 33·1 in Salford, 34·5 in Leicester, and 35·0 in Liverpool. The high death-rates in these last-mentioned towns were mainly due to excessive diarrhœa fatality.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had steadily increased from 406 to 1136 in the eleven preceding weeks, further rose to 1239 last week. These included 958 from diarrhœa, 105 from scarlet fever, 76 from whooping-cough, 49 from different forms of fever, and 32 from measles. The annual death-rate from these seven diseases averaged 8·6 per 1000 in the twenty towns; while it was but 4·6 and 4·9 in Bristol and Brighton, it ranged upwards to 15·7 and 20·9 in Salford and Leicester. Scarlet fever was proportionately most fatal in Sunderland and Norwich. Of the 16 deaths from diphtheria 13 were returned in London. The 32 fatal cases of measles were the lowest number recorded in any week of the present year. Small-pox caused 3 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined from 200 to 135 in the six preceding weeks, further fell to 128 on Saturday last; 26 new cases of small-pox were, however, admitted to these hospitals during the week, against 20 and 30 in the two previous weeks. The Highgate Small-pox Hospital contained 11 patients on Saturday last.

The fatal cases of diarrhœa in the twenty towns, which in the ten preceding weeks had steadily increased from 51 to 864, further rose last week to 958. The annual death-rate from diarrhœa averaged 6·7 per 1000 in the twenty towns; it was equal to 3·8 in London, and to 9·4 in the nineteen large provincial towns. The death-rate from diarrhœa among the twenty towns ranged last week from 2·7 and 3·2 in Oldham and Bristol to 13·0 and 18·1 in Sheffield and Leicester. In the last-mentioned town the diarrhœa rate showed a decline from that of the preceding week.

The deaths referred to diseases of the respiratory organs which had been 152 and 167 in London in the two preceding weeks, declined to 124 last week, and were 14 below the corrected weekly average. Of these 124 deaths 63 were attributed to bronchitis and 40 to pneumonia. The annual death-rate from diseases of this class was equal to 1·8 per 1000 in London, and 3·2 in Liverpool.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 18·4 per 1000, showing a further decline from the rates, 20·1 and 18·6, in the two preceding weeks; this rate was, moreover, 6·7 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 13·1 and 15·1 in Greenock and Aberdeen, to 27·3 and 28·4 in Perth and Leith. The fatal cases of the seven principal zymotic diseases in the eight towns were 123, against 122 and 127 in the two preceding weeks; they included 63 from diarrhœa, 17 from whoping-cough, 16 from scarlet fever, 13 from diphtheria, 12 from fever, 2 from measles, and not one from small-pox. The annual death-rate from these seven diseases averaged 5·0 per 1000 in the eight towns, against 8·6 in the large English towns. The excess of the zymotic death-rate in the English towns was due to the greater fatality of infantile diarrhœa. The zymotic death-rate in the Scotch towns ranged from 1·3 and 1·9 in Greenock and Perth, to 6·4 and 10·7 in Paisley and Leith; the excess in Paisley was due to diarrhœa, and in Leith to scarlet fever and diarrhœa. The fatal cases of diarrhœa in the eight towns, which had been 51 and 65 in the two preceding weeks, declined to 63 last week; the annual death-rate from this disease did not average more than 2·5 per 1000 in these eight towns, while in the large English towns the rate was equal to 6·7. The highest rates from diarrhœa in the Scotch towns were recorded in Aberdeen and Leith. The 17 deaths from whooping-cough (a decline from the average of recent weeks) included 7 in Glasgow and 3 in Dundee. Six of the fatal cases of scarlet fever were returned in Glasgow, 5 in Leith, and 4 in Edinburgh. Eight deaths from diphtheria were registered in Glasgow, and a fatal case of measles was recorded in Glasgow and Aberdeen. The deaths referred to fever, which were 17 and 7 in the two previous weeks, rose to 12 last week, of which 11 were returned in Glasgow. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) were 55 in the eight Scotch towns last week, against 70 and 39 in the two preceding weeks; the annual death-rate from these diseases was equal to 2·2 per 1000, against 1·8 in London. The causes of 110, or 24 per cent. of the 458 deaths registered in the Scotch towns last week were uncertified; in the English towns the proportion of uncertified causes of death scarcely exceeded 2 per cent.

HEALTH OF DUBLIN.

The rate of mortality in Dublin last week corresponded with that of the previous week, which was so high as 37·8 per 1000. During the past eight weeks of the present quarter the death-rate in the city has averaged 33·3 per 1000, against 22·0 in London and 17·8 in Edinburgh. The 228 deaths in Dublin included 63, or no less than 28 per cent., which were referred to the seven principal zymotic diseases, showing an increase of 7 on the number returned in the preceding week; 9 resulted from measles, 5 from scarlet fever, 8 from whooping-cough, 5 from different forms of fever, and no less than 36 from diarrhœa. The annual death-rate from these seven diseases was equal to 10·5 in Dublin last week, against 5·6 in London and 2·5 in Edinburgh. No death from small-pox was registered in Dublin last week, and it may be noted that since the first week of February, 1878, the city has not been free from a fatal case of this disease. Measles and whooping-cough showed an increase in fatality, whereas the deaths from scarlet fever declined. The fatal cases of diarrhœa, which had averaged but 5 during the first five weeks of the current quarter, were 23, 25, and 36 in the three following weeks; the annual death-rate from diarrhœa in Dublin last week was 6·9 per 1000, against 6·7 in the twenty large English towns.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SANITARY TRAINS IN WAR.

The Russian journals contain notices of two works recently published, one a report by the manager of the Red Cross Society on the proceedings of that Society during the late Russo-Turkish war, the other a report of the *état-major* on the work done by sanitary trains during the war. In these reports some interesting particulars are given of the advantages derived from the use of these trains. It would appear that sanitary trains were first used in the war of 1866, and that the experience of their use in the subsequent Franco-German war led to the conclusion that they were available only for the removal of one-third of the sick and wounded from the seat of war. Judging from the experiences of these two wars, it was estimated at the beginning of the Russo-Turkish war that ten trains would suffice for the wants of the Russian army, but the Emperor was asked to authorise the formation of fourteen. At the outset of the war, however, it was found that the larger number was insufficient; and in the end no less than thirty-two trains were organised, each of which was continuously at work for an average period of 465 days. Of the fourteen trains first formed the Red Cross Society undertook the organisation and management of ten. The total number of sick and wounded transported from the seat of war into Russia by the sanitary trains was 218,296, and in addition 40,254 soldiers slightly wounded were sent by ordinary military trains. As to the advantage of these sanitary trains, apart from the fact of their relieving dead-lock from overcrowding in the hospitals at the seat of war, it is noted that 80 per cent. of the patients reached their destination in a state of convalescence. The mortality in the trains in the course of transit was 255. The number of medical men and attendants attached to the trains was 1280, and of these 319 were attacked by contagious maladies whilst on duty. The part taken by the Red Cross Society in this great evacuation of

sick and wounded extended to no less than 106,025 patients, besides the important assistance given generally in the work of transferring the patients to the Russian lines of railway at Jassy, on the Roumanian frontier, where at times the accumulation of patients became all but unmanageable from their great number and the insufficiency of shelter. Occasionally 2000 were despatched to their further destination daily. The report relating to the Red Cross Society refers to the augmented difficulty of their work from the "explosion" of "purple typhus" among the sick and wounded, the disease having been communicated to them by the Turkish prisoners. It is added that all measures to arrest the spread of the malady failed, until the evacuation of the sick and wounded was directed along other routes.

THE VACCINATION ACT, 1880, INDIA.

The preamble of this Act sets forth that it is expedient to give power to prohibit inoculation, and make the vaccination of children compulsory. To this end it is enacted that the Act shall apply only to such municipalities and cantonments situate in the territories administered respectively by the Lieutenant-Governors of the North-Western Provinces and the Punjab, the Chief Commissioners of Oudh, the Central Provinces, British Burmah, Assam, Ajmer, and Coorg, within, in fact, the Presidency of Bengal. Municipalities may adopt the Act by a majority of votes, and local governments may, with the approval of the Governor-General in Council, apply it to cantonments. The Act prohibits any person who may have undergone inoculation from entering within any area where the Act is adopted before the lapse of forty days from the date of operation, and without a medical certificate to the effect that he is no longer likely to spread small-pox. Public vaccinators are to be appointed, and all unprotected children from the age of six months to fourteen years if a boy, and eight years if a girl, where the provisions of the Act are in force, are to be vaccinated. Children who have been vaccinated are to be submitted to the vaccinator for inspection of results. The vaccination of a child is ordinarily to be performed with such lymph as may be prescribed under the Act, provided that, first, if animal-lymph is so prescribed and the parent or guardian of any child desires that such child shall be vaccinated with human lymph, it shall be so vaccinated; and, second, if in any local area in which animal-lymph is procurable human lymph is so prescribed, and the parent or guardian of any child desires that such child should be vaccinated with animal-lymph, and tenders to the vaccinator the amount of such fee, not exceeding one rupee, as may be fixed by such rules in this behalf, such child shall be so vaccinated. No fee is to be charged by public vaccinators. Municipalities and cantonments where the Act is put in force are empowered to frame rules regulating its administration, including, among other matters, the nature of the lymph to be used, and the supply of a sufficient quantity of such lymph. The penalties for breach of the provisions of the Act are severe, the fines being extensible to 50, 500, and even 1000 rupees, according to the provisions violated, and the imprisonment ranging to three and six months.

GUAGING OF PUBLIC SEWERS.

The United States National Board of Health have been causing a series of gaugings of sewers to be made in various parts of the States, with a view of determining the size of conduits needed for the removal of the greatest amount of sewage-matter produced by given populations, or, in other words, to determine the degree to which it would be safe to reduce the sizes of public sewers in cases where the object is only the removal of the foul sewage-matters of households, manufacturing establishments, public institutions, &c. A first report on the subject has been presented to the Board by Mr. Geo. E. Waring, jun., and is published in No. 6 of the Board's bulletin for the current year. The observations are not numerous, but they show how largely the size and cost of sewers may be reduced by the exclusion of storm-water from them. Thus, Mr. Waring observes that when the Commission of the National Board of Health recommended the system since carried out at Memphis of lateral sewers of six inches diameter, and a main outlet of twenty inches, for a prospective population of 60,000, they provided a wide margin for contingencies. He adds: "The result of these investigations cannot fail to be of the greatest practical value, especially in the case of the smaller towns, where the cost of constructing the usual storm-water systems is so great as to be prohibitory. Incidentally, the advantages to all towns, large or small, of adjusting the size of the sewers to the actual work of removing foul wastes must be regarded as most promising.

DIPHTHERIA IN RUSSIA.

The epidemic of diphtheria in the government of Poltava is reported to be gradually diminishing, and the disinfection of infected houses is being carried out according to the suggestions of Dr. Hübner of the Red Cross Society. A sanitary commission has been established, and in order to facilitate its operations each district has been divided into five or six sanitary subdistricts, and these again into eight or ten quarters. At the head of each subdistrict is placed a medical man, and of each quarter a schoolmaster. For the disinfection of the cottages of the peasants it has been decided by the commission that three pounds of sulphur shall be burnt in each one infected; but in cases where the occupier objects to this process, free ventilation and the burning of vinegar are to be substituted. Diphtheria appeared in the town of Catherinoslaw on the 4th of August. It was believed that the disease had been imported from Bakhmout. The epidemic is declining rapidly in Kiew—thanks, it is said, to the care and energy of the Red Cross Society.

SANITARY CONDITION OF MULLINGAR.

The registrar of Mullingar district, in a recent report, states that it is impossible to carry out the Sanitary Act as intended by the Legislature, owing to the want of a plentiful supply of pure water for drinking purposes and for flushing the sewers, the greater number of which are at the surface, and give off most deleterious gases during the warm weather. The surface sewers on the north side of the town are in a most insanitary condition, owing to the want of flushing, and several of the residents have complained of the nuisance. With reference to the supply of water, there is, it appears, only one well, and that an open one, the water from which Dr. Cameron of Dublin does not consider suitable for drinking purposes; while a large number of the private pumps have been condemned, owing to sewage-contamination, and it is probable that nine-tenths of those at present in use, if examined, would be found equally impure.

THE HEALTH OF CALCUTTA.

Dr. McLeod's report for the second quarter of the year shows that the temperature of the hot season had been "remarkably moderate," with "nothing very remarkable about the humidity, rainfall, and barometric pressure of the month. The price of food had also been "moderate and falling." The fever mortality was low in each month of the quarter, and cholera caused fewer deaths than in the corresponding period of any year in the previous decade. The deaths from diarrhœa and dysentery were also below the average. Ten deaths only were recorded from "the new disease" beri-beri, seven in April and three in May. Dr. McLeod refers to an interesting report on this disease which he had received from Dr. Lovell, the chief medical officer of the colony of Mauritius, where beri-beri appeared in December, 1878, reached its climax in February, 1879, and disappeared in the June of that year, after having caused 729 deaths.

YELLOW FEVER.

In THE LANCET of July 31st we reported, on trustworthy information as we believed, the occurrence of numerous cases of yellow fever on board the Royal Mail Company's steamer *Derwent* on her homeward voyage, and the existence of the disease on board when she touched at Havre. The *Revue d'Hygiène* has made inquiries of the medical officer of health of Havre, Dr. Launay, on the subject, and ascertained that the sickness which occurred on board the *Derwent* was not yellow fever, but bilious remittent fever.

A proposition to establish conduits of water in the city of Samara, first broached by the local authority in 1860, but which proved abortive then for want of funds, and has to the present year remained dormant for the same reason, has now been revived with hope of a successful issue. A special committee has been appointed by the Municipal Council to consider the question, and the population is hopefully looking for a near future when the supply of water will be abundan

and the chances of such privation of the fluid as was suffered in 1877 set aside, when, among other incidents, half the city was burned to the ground from the inability to control the flames owing to the deficiency of the water-supply.

THE NEW ROYAL INFIRMARY AT EDINBURGH.

IF we have delayed giving our readers a description of the magnificent new hospital which has been built by public subscription in the Scottish capital, and which was opened for the reception of the sick some ten months since, it is not because we in any way fail to estimate the importance of the undertaking which has been brought to such a successful issue, but rather because we wished to defer a detailed description of the building until it had been in use for some months, and until those who have to work in it had become acquainted with its good as well as, possibly, its weak points. The erection of a hospital at an expense which has been almost unlimited in a city which has been long recognised as one of the capitals of medicine and of thought is no common event, and justifies the expectation that such a combination of circumstances would furnish a building as perfect as it is possible for a building to be in our present state of knowledge, and one which should serve as a model to others, and which should furnish many a useful lesson to architects and sanitarians. These expectations have been, to a great extent, fulfilled, and we shall endeavour to make the reader fully acquainted with the characteristic features of the new building, and in doing so we shall not scruple to draw attention to any points which may seem to us to be susceptible of improvement. Not to be hypercritical upon such an occasion is to fail in our duty, and we feel sure that our Scotch friends would be the first to resent a notice which adopted a merely laudatory and not a critical strain.

The site.—The site chosen for the new infirmary is probably the best which could have been selected, and it appears to us to fulfil every requirement. It is on one of the highest points, and near to the centre of the city, so that it is readily accessible from all points, and therefore is likely to be of maximum utility to the poor whom it is intended to serve. It is close to the University also, so that the students will lose no time in going from their academical to their clinical studies. The ground is eleven and two-thirds acres in extent, and slopes gradually downwards from its most northern to its most southern limit. In this way the drainage of the soil is easily effected, and the whole of the buildings placed upon it receive a maximum amount of sunlight and air. The plot occupied by the infirmary is bounded on the north by the open grounds of George Heriot's Hospital, and on the south by the beautiful public parks known as "The Meadows" and "Bruntsfield Links"; on the east, a broad avenue known as "Meadow-Walk" separates it from the new University buildings, while on the west side is Lauriston-lane. That such a capital site could be found in the middle of a large city is not a little remarkable, and, although we understand that some of the promoters of the new infirmary very strongly wished it to be built upon the site of the old one, we feel sure that few, now the thing is done, will regret the extra expense which the change of site has entailed. The ground, which cost £62,438 10*s.* 5*d.*, or about £5300 per acre, was previously occupied by George Watson's Hospital, and the architect has cleverly managed to utilise the old building in that block of the new one which is devoted to the nurses and resident students.

General plan.—The plan adopted is that which is now familiarly known as the "pavilion" plan, and it seems probable that in the "pavilion" we have reached a fixed point in hospital construction, from which no very material departure is likely to be made. The administrative block (George Watson's original building) forms the very centre of the plan, and north and south of it are two systems of pavilions, that to the north (consisting of six pavilions) being devoted to surgical cases, and that to the south (consisting of four pavilions) being devoted to medical cases. All the pavilions run almost due north and south. A corridor connects the northern extremities of the medical or southern system of pavilions. This corridor is only one storey high, so that the space between these pavilions is almost fully exposed to the purifying and sweeping action of both northerly and southerly winds, while a maximum amount of sunlight finds its way into the space because it presents its full surface to the south. The surgical or northern pavilions, six in number, are divided into two groups of three by a great central building, four storeys high, having a handsome turreted clock tower. This building forms one of the chief architectural features of the edifice. It contains a grand entrance-hall and staircase, board room, treasurer's room, and officers' room, and from it run three corridors, the southward to the medical pavilions, and two others east and west to the surgical pavilions. From each of these surgical corridors two pavilions run northward and one southward, so that of the six surgical pavilions four run northward from the connecting corridor, and two (smaller than the others) run southward. The four main surgical pavilions running to the north form, necessarily, three courtyards, each of which is quite open to the north, but more or less closed in to the south. The central court contains an entrance lodge, and is almost completely closed to the south by the four-storeyed main building. From the entrance lodge the ground in this court slopes upwards to the main entrance, which is on the first floor of the main building, and this rise in the ground partially obscures the windows of the lowest wards in the pavilions on either side.

Owing to the main entrance being upon the *first* floor, and to prevent (apparently) the necessity of descending to the ground floor in order to pass to the various pavilions, the connecting corridor of the surgical pavilions is two storeys high (about 30 ft.), and it is obvious that this blocks out to a very serious extent both sunlight and wind. Thus it will be seen that the three surgical pavilion-courts face only to the north, and are very much blocked to the south by the main building and tower, by the two-storeyed corridor, and by other buildings which encroach upon what should have been left as an inlet both for sunlight and for southerly winds. The obscuration of those windows of the lower wards which look upon the central court is also very undesirable. The fact that the main entrance is upon the first floor necessitates a gradual slope in the long corridor which runs southward from it to the medical pavilions. To what extent these undesirable points in the general plan may have been avoidable, we have no means of knowing. They are probably, in part at least, due to the fact that the architect was compelled to utilise the building of "George Watson's Hospital," which has been absorbed into the new infirmary. Great praise is due for the ingenuity shown in making use of this building, which the managers found ready to hand upon the estate which they purchased, but to what extent it may have interfered with the attainment of perfection in the plan of the new infirmary we cannot say.

Each pavilion has three ward-floors and an attic. The height of each pavilion from the ground to the eave of the roof is 46 ft., and from the ground to the ridge 63 ft. The two central medical pavilions are 112 ft. apart, while the two end pavilions are 100 ft. from the more central ones. (In our sketch-plan all the medical pavilions are erroneously represented as equidistant from each other.) The two central surgical pavilions are 158 ft. apart, while the two end ones are only 88 ft. from the central ones. The medical pavilions are 173 ft. 6 in. long, by 33 ft. wide (outside measurement), while the four chief surgical pavilions are 128 ft. by 33 ft. The two surgical pavilions running southward are 59 ft. 6 in. by 28 ft. The surgical or northern frontage of the hospital looking towards Lauriston-lane extends along a line of about 480 ft., while the medical or southern frontage looking over the meadows is about 450 ft. long.

Style.—The style chosen by the architect, Mr. Daniel Bryce, and admirably carried out by his nephew, Mr. John Bryce, is that which is well known as the Scotch Baronial, the prominent features of which are stepped gables and turrets. The material is stone, with slated roofs, and the general effect produced is exceedingly happy. The building is solid, handsome, and imposing, and there is an entire absence of useless and frivolous ornamentation. The tint of the stone, however, is somewhat sombre, and under a grey sky there is a certain gloominess about the edifice not altogether desirable. The free extremities of the pavilions are flanked by turrets in which are placed the sanitary offices of the

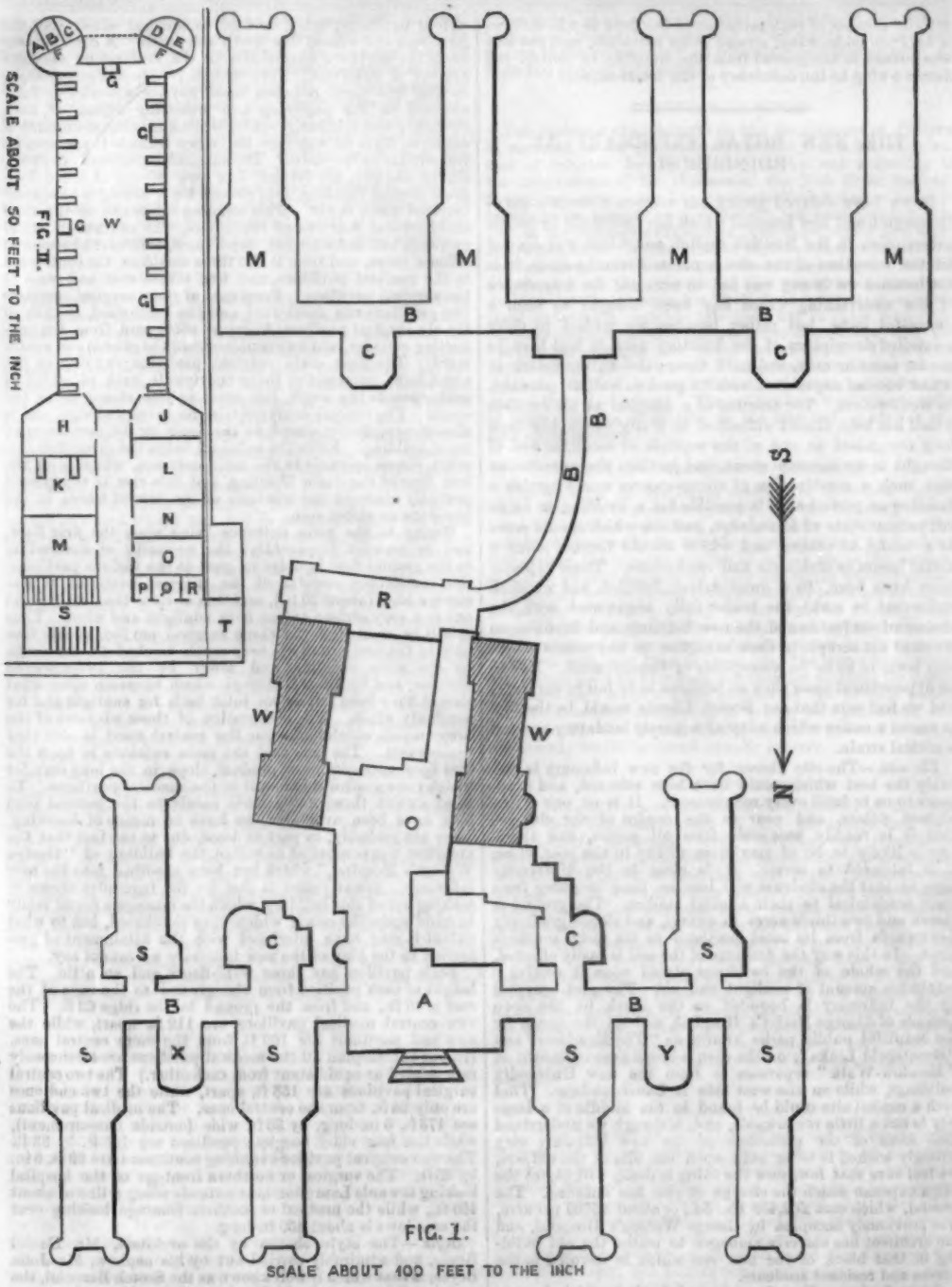

SCALE ABOUT 50 FEET TO THE INCH
FIG. II.
A B C D E F G W H J K L M N O P Q R S T
M M M M
B B B B B
C C
S2
N
W W
O
S S S S S
C C C
A
X Y
FIG. I.
SCALE ABOUT 100 FEET TO THE INCH

FIG. I.—Sketch plan (reduced from a larger plan kindly furnished to us by Mr. John Bryce, the architect), showing the general disposition of the buildings of the Edinburgh Royal Infirmary. A, Central administrative building and grand entrance. B B B, Corridors. C C, Clinical lecture theatres. M M, Medical pavilions. S S, Surgical pavilions. O, Operating theatre. R, Medical reception room. W W, George Watson's original building (deeply shaded), converted into a home for nurses and resident students. X, Students' hall. Y, Casualty room.

FIG. II.—Floor plan of Eastern Medical Pavilion. A, Watercloset. B, Urinal. C, Slop sink. D, Bath-room. E, Lavatory. F, Lobby. W, Ward with twenty-one beds. G G, Fireplaces. H, Nurse's room. J, Doctor's room. K, Private ward. L, Day-room for convalescents. M, Ward-kitchen and sink. N, Bath-room and watercloset. O, Mattress-room. P, Dinner-lift. Q, Patient's lift. R, Dust-shoot and dirty linen shoot, and sink. S, Staircase. T, Corridor.

These sketch plans, made by ourselves, are only approximately accurate.

wards, and one cannot but be struck with the admirable manner in which the Scotch baronial style lends itself to sanitary purposes. We are informed, however, that the turret of the Scotch baron's castle is, so to speak, the real ancestor of the sanitary turret of the modern hospital, and that the baronial turrets were not unfrequently used as latrines, the moat below being the receptacle for the soil. It was often necessary to have two latrine turrets, the one or the other being used according to the direction of the wind, for a hurricane could counteract the laws of gravity, and that which should have fallen into the moat occasionally took a contrary direction.

Details.—We may now consider the arrangements of the pavilions themselves, and if we describe one pavilion it is only necessary to multiply it by ten to get an idea of the entire hospital. Our observations were chiefly made upon an empty ward floor in one of the surgical pavilions, but the arrangements are almost precisely similar, differing only in scale, throughout the hospital. This pavilion, 128 feet long, consists of a low, dry basement, three ward floors, and an attic. The pavilions are 33 feet wide towards their free end, but slightly wider at their attached ends. The eaves are surmounted by stepped gables at the end and sides bearing the chimneys, and pierced with narrow windows to give light to the attic; the towers at the end are each twelve feet in diameter, and are surmounted by conical tops pierced with louvred openings for purposes of ventilation, and surmounted by ornamental vanes. In the middle of the wide attached end of each pavilion is a square louvred turret with conical top and vane, used entirely for ventilating purposes, of which we shall have more to say hereafter.

We will now proceed to the top ward floor of the pavilion and examine its arrangements. Ascending by a stone staircase 6 ft. 6 in. wide, winding in a spacious well-hole some 20 ft. square, we find ourselves in a paved corridor 12 ft. wide by 15 ft. high, from which access is obtained to the six top floors of the surgical pavilions. If the pavilion be an end one the entrance to the ward is flanked on one side by the staircase and on the other side by a food lift, a patient's lift, a little room containing a sink and dust shoot, and also a foul linen shoot. These shoots run right through to the corridor in the basement. We understand that it has already been decided not to use the foul linen shoots, and certainly the dust shoots ought not to be used either, since they open into the lower heated corridor, and quite close to the entrances to the lifts through which heated air charged with impurities has the chance of finding its way to every floor of the building. We hope by this time it is recognised that by perforating a building with vertical shafts, whether for staircases, lifts, or shoots, we diminish to the vanishing point the great principle of separation and isolation which is the only *raison d'être* of pavilion hospitals. Leaving the corridor we enter the pavilion, the ward being approached by a passage some 60 ft. long and 9 ft. wide, giving access on either side to certain apartments which occupy the wide attached portion of each ward floor. These apartments are, on one side a ward-kitchen, a mattress-room, a day-room for convalescent patients, and a nurse's sitting-room looking into the ward; and on the other side a bath-room and W.C., a private ward containing two beds, and a "doctor's room" for examining urine, &c. In addition to these apartments, there is (on the top floor) a small wooden winding staircase, giving access to the attic storey. The entrance to the ward is closed by swing doors, and pushing these aside we find ourselves in the ward itself. This is 75 ft. 8 in. long, 28 ft. 6 in. wide, and 15 ft. high. It contains fourteen beds only, so that each bed has the magnificent allowance of about 153 ft. of area, and about 2300 cubic feet of space. These are amounts which are considerably in excess of those allowed in any other general hospital in the country. Not only is the cubic space allowed to each patient very large, but the means of renewing the air and thoroughly ventilating the ward appear also to be most ample. On either side are seven windows running from about two feet from the floor to within a few inches of the ceiling, and at the free extremity of the ward are two windows and a glass door. The lower three-quarters (about) of the windows open sashwise, but the upper part consists of a pane of glass revolving vertically on an axis. This is opened and shut by an iron rod, and its position being determined by the medical officer or nurse, it is fixed by a simple lock, and cannot be interfered with by patients. In fine weather the windows will afford most ample means of ventilation. In addition to these there are a number of fresh air inlets, which are situated on the floor level immediately beneath each of the windows. Each of these is about 8 in. square. They are simply channels, running through the walls to the open air, and closed at their outer ends by an iron grating. This grating is closed or opened by means of an iron valve, hinged from the bottom or the top (we saw both arrangements), and worked by means of an iron rod running along the channel to its opening in the ward. The patients' lockers are built into the window recesses, and are fitted round these fresh-air inlets, the length of which they thus practically increase. In some of the wards these inlet channels slope gradually downwards to the outside grating, and one which we measured had a length of 2 ft. 8 in. from the ward to the grating. These channels, about eight inches square, and nearly a yard long, are obviously not easy to clean; and when the channel has a downward slope, and the valve closing the grating is hinged from below, material which rolls or is blown down the slope is stopped by the valve from escaping through the holes in the grating, and it is obvious that no brush would serve to cleanse the somewhat acute angle formed by the floor of the channel and the valve of the grating. In one ward, and only one, we found that portions of an old surgical dressing had lodged in this very spot, and we mention the fact because it is evident that air entering a ward through a dusty or a dirty channel may disseminate much that is, to say the least, undesirable. In the turret-annexes (of which we shall have more to say), a hot-water coil has been placed exactly in front of one of the fresh-air inlets, so that the cleansing of it is thus rendered not merely a matter of difficulty, but an absolute impossibility. It ought to be an axiom of hospital construction that every air inlet should be susceptible of rapid and perfect cleansing. The ward has three open fireplaces, one at each side, and one at the end under the centre window. Two of these are Galton's grates, with inlets (12 in. by 12 in.) above them for warmed fresh air. Exclusive of the windows and doors, the fresh-air inlets are probably nearly sufficient to renew the air in the ward about twice an hour without draught. Fresh air delivery is everywhere horizontal, and nowhere vertical. The ward is equally well provided with outlets for foul air. There are, first of all, the three fireplaces. Beneath each bed is an outlet 6 in. by 9 in. At each of the four corners of the ward there are two large outlets—one near the floor and one near the ceiling; and at either extremity of the ward, close to the ceiling, there are also outlets—twenty-four outlets exclusive of fireplaces and gas flues. These outlets are a very special feature in the hospital. Each of them is connected with a brick flue, terminating on the attic storey in a wooden tube, which travels backwards to the louvred turret placed over the attached end of the pavilion. The attic storey is therefore to a great extent filled by a compact mass of wooden tubes connected with the exhaust flues of the wards below. These tubes terminate round a hot-water tank situated in the louvred turret, and it is intended that the rarefaction of the air in the tubes caused by the heat of the tank shall maintain a constant outflow of foul air through the tubes. This use of hot water as a means of air exhaustion is due to the late Mr. Daniel Bryce. We were not able actually to see the tanks and tube-ends, but we were assured that the outflow of air through the tubes was well maintained. Some of the tubes leading from the lower wards are as much as 200 feet long, and the total length of exhaust tubes in the building must be very considerable indeed. It is hardly possible to think upon such a system as this, ingenious as it undoubtedly is, without sundry misgivings. The chief reflections are, what kind and what amount of matter will collect in one of these long tubes in the course of twelve months, and what possible results may happen in the case of a back current being accidentally established? Supposing, for instance, the hot-water apparatus fails some day in the middle of winter, that the water in the turret tank freezes while a powerful exhaustion is going on through the ward fireplaces, what will happen then? The hospital has been provided with a series of long tubes, having a hot-water tank at one end and three fireplaces at the other, and we did not clearly understand how it has been ensured that the current of air in these tubes shall always be in one direction. When our chimneys smoke (and all chimneys do smoke occasionally) we know the worst of it, and all the material brought back into our rooms is inert and antiseptic. But if a foul exhaust-tube should "smoke," what then? On theoretical grounds we should

hesitate to adopt this system of exhaustion, and we trust that the managers of the Royal Infirmary will take steps to furnish the scientific world with some exact information on the action of these tubes. Two anemometers, each indicating a current in one direction only, should be kept permanently at the ward orifice of each tube in some ward set apart for experiment, and the amount and direction of the daily current during a whole year should be recorded. If it should be established that an occasional puff of air regurgitates from these foul flues into the ward, it is a question whether their potentiality for harm does not altogether outweigh their utility as ventilators.

(To be concluded.)

THE SERVICES.

HEALTH OF TROOPS IN AFGHANISTAN.

THE information which has reached this country respecting the health of the troops on the march from Cabul to Candahar is very satisfactory. The distance from Cabul to Khelat-i-Ghilzai was accomplished in seventeen days, being rather more than fifteen miles a day, with a loss by death of only one European in a force of 2836, and four native soldiers out of 7157, and six camp followers. We may infer from this that every possible attention has been paid to the sanitary condition of the troops. We regret to observe by a letter in the *Times*, signed "An Anxious Mother," that similar care does not seem to have been taken of the troops at Gundamak. In a letter from her son, an extract from which is published, details are given which, if correct, show an utter disregard of sanitary considerations in the selection of the site for a camp at Sufed Sung, and he adds, "The doctors are kicking up a tremendous row about it." We trust the military authorities will cause an investigation to be made into the real facts of the case, and, if substantiated, into the steps taken by the medical officers to prevent so shameful a neglect of sanitary precautions. In former days a medical officer had no power to interfere. Now he has not only the right, but it is his duty to point out to the officer commanding any circumstances likely to affect injuriously the health of the men. It is clear, therefore, that an inquiry should be forthwith instituted to ascertain what representations were made by the medical officer in charge, and whether, finding them disregarded, he made a report in writing to the commanding officer. If he did, the responsibility resting upon the latter is very serious, and unless he can show that it was impossible to carry out the recommendations it will be clearly the duty of the military authorities to take such steps as will prevent the repetition of such utter neglect of the health of the men and disobedience of the standing orders of the service.

NAVAL MEDICAL DEPARTMENT.

Rumours are current that the Admiralty are opposed to making a new grade of rank in their service to correspond with that of brigade-surgeon in the army, but that they are not unwilling to increase the retired pay of fleet surgeons to a maximum of thirty shillings a day, as given in the army to brigade-surgeons. This is strange, and we shall have something to say on the subject hereafter; but for the present suffice it to express the hope that the age at which fleet-surgeons may receive that rate of retired pay will be made to correspond with that at which it is obtainable by brigade-surgeons in the army.

Deputy Surgeon-General H. Hassard, the principal medical officer of the 2nd Division Cabul Field Force, was compelled by ill-health to return to India the last week in July, and will rejoin his appointment at Umballa as the administrative medical officer of the Sirhind Circle.

ADMIRALTY.—The following appointments have been recently made:—Fleet Surgeon Gerald Molloy and Surgeons J. T. Henwood and A. W. May to the *Achilles;* Fleet Surgeon W. H. Adam to the Royal Marine Artillery; Surgeon F. A. Jeans to the *Minotaur;* Staff-Surgeon J. Lamber to the *Tamar;* Staff-Surgeon E. W. Doyle to the *Coquette*.

Staff Surgeon Charles Strickland has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of 22nd August.

MILITIA MEDICAL DEPARTMENT.—The undermentioned officers resign their commission; also are permitted to retain their rank, and to continue to wear the uniform of their regiments, on their retirement:—Surgeon-Major Samuel Swain Scriven, M.D. (Royal North Gloucester Militia), and Surgeon-Major William Bulmer (5th West York Militia).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following special notice has been issued for the information of candidates for the Membership as to the payment of fees for the Primary and Pass Examinations:—

"All candidates presenting themselves for the first time, whether at the primary examination or at the pass examination for the diploma of member, will be subject to the payment of fees in accordance with the provisions of the following bye-law of the College, and all candidates who shall hereafter be rejected at either of these examinations will also be subject to the conditions of the said bye-law:—

"9. The fee of twenty guineas, over and besides the fee for the preliminary examination and the stamp duty, shall be paid by every person prior to his admission as a member. Every candidate for the diploma of member shall, prior to his first admission to the primary professional examination, pay a fee of five guineas, and such fee shall be allowed him as part of the said fee of twenty guineas payable on his admission as a member, and shall be retained whether he pass or fail to pass such examination. No candidate shall, after failure at any primary professional examination, be admitted to a subsequent primary professional examination without paying a further fee of three guineas, which shall be retained whether he pass or fail to pass such examination, but shall not be allowed as part of the said fee of twenty guineas. Every candidate shall, prior to his first and every subsequent admission to the final professional examination, pay a fee of fifteen guineas over and above all charges for stamps; but in every case of failure to pass such examination the sum of ten guineas and the charges for stamps shall be returned to the candidate. The fifteen guineas paid on admission to any final professional examination by a candidate who shall be successful thereat shall be allowed him as part of the said fee of twenty guineas payable on his admission as a member."

Correspondence.

"Audi alteram partem."

FEVER IN MAYO.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Aug. 14th there is given an able and instructive report on fever in Swinford Union, County Mayo. According to that report the climate of Mayo generally, including Swinford, is remarkably damp, rainy, and cold; the condition of the people was that of extreme poverty, their huts affording no more than 200 cubic feet of space to the occupants, the only means of ventilation, the chimney, if such exists, and the chinks in the door; a water-supply from wells, into which sewage-matter of every nature freely passed, collections of filth poisoning the air; a dietary consisting almost exclusively of Indian meal, badly cooked, and often used without milk; in times of distress their clothing pawned; five or six persons sleeping in the one bed, owing to the dearth of bedclothes. The chief types of disease met with were "simple continued and enteric fevers," diarrhœa and dysentery, and typhus. Among the chief features connected with *enteric* cases are enumerated epistaxis, melæna, emaciation, rachialgia, arthritic, osteal, and abdominal pains, and "the usual relapses of enteric fever." Closely allied to the enteric cases, both as to causation and symptoms, were those of diarrhœa and dysentry; in each it was the rule for all the members of a family to suffer from one or other of these affections; and then, in the statistics given, we are informed that twelve

admissions occurred by "enteric *or* simple continued fever," but no deaths by "enteric *or* simple continued fever."

Here, then, it appears to me we have in operation conditions under which disease, adynamic in type, becomes a natural result, whether as fever, diarrhœa, or dysentery. Nothing is stated in the report in question regarding *specific poison*, neither, apparently, was it deemed necessary under the circumstances to assume the operation of other than the conditions enumerated. But with reference to remarks that have been made in some of my papers on fevers among British troops in India, I am induced to believe that the observations now quoted may aid in clearing up certain points in which observers at home and observers abroad seem to experience some little difficulty in mutually understanding each other. The conditions of the climate of Mayo and of the people, as described, are in complete opposition to those under which the soldier in India lives; inasmuch, then, as on the one hand we have in full operation the causes of asthenic disease, so we have on the other—namely, that of the young soldier in India, those of sthenic. An eminent London physician has designated "enteric" fever a *multiform* disease; in the remarks quoted the term enteric is used in connexion, and, to all appearance, synonymously with that of "simple continued" fever; the affection so designated is described as prevailing together with typhus, and it is specially stated that "closely allied to the enteric cases, both as to causation and symptoms, were those of diarrhœa and dysentery." May I, therefore, be permitted to observe that with a view to indicate as clearly as may be the precise nature of the cases in Mayo alluded to as of enteric fever, it would, I think, be useful were a short statement given of—(*a*) the phenomena and causation, whether specific or non-specific, of the cases so designated; (*b*) of the precise respects in which they are allied to, or identical with, or different from those of typhus, simple continued fever, diarrhœa, and dysentery, from one or other of which "it was the rule for all the members of a family to suffer" during the epidemic alluded to; (*c*) the precise significance intended to be conveyed by the term *enteric*—that is, whether as indicating the existence of intestinal disorder in the course of true specific fever, or the presence of a specific form of fever, whether with or without intestinal disorder, or as a synonym of simple continued fever, or if in any other sense, its exact nature. As, according to the high authority alluded to, "enteric or typhoid" fever is *multiform*, it may, perhaps, become practicable, from a consideration of the points above indicated, to learn how far the disease referred to in Mayo represents a separate and independent affection, or a *condition* occurring in the course of others.

I am, Sir, yours, &c.,
C. A. GORDON, Surgeon-General.

Cambridge-gardens, W., August 24th.

ON SCLEROTOMY.

To the Editor of THE LANCET.

SIR,—In his remarks on the treatment of glaucoma by sclerotomy, Mr. Bader has overlooked an important aid to treatment—viz., the use of eserine before and after the operation. There are some cases, and those generally the most severe and urgent, in which the local application of eserine gives no results either in causing contraction of the pupil or in reducing tension, and in these sclerotomy or iridectomy should be at once performed. But a large majority of glaucomatous eyes are very rapidly and beneficially affected by eserine, and its effects are to some extent a guide in the choice of an operation. If the pupil contracts and the tension is perceptibly reduced after repeated use of the drops, there is every prospect of a successful result after sclerotomy; and not only so, the operation is more easily performed, and is less likely to be followed by protrusion of the iris. If, on the other hand, the pupil and the eyeball tension remain unaffected by the eserine, there is still a fair prospect of curing the glaucoma by sclerotomy; but iridectomy is, I think, generally preferable. If, however, a sclerotomy has been performed under such circumstances, the after-use of eserine will often prevent "enclavement" of the iris and its occasionally troublesome effects.

In a paper read by me at a meeting of the Cinical Societly in 1876, I ventured to express the opinion that sclerotomy would be "the future remedy for the great majority of cases of glaucoma." I am therefore very glad to hear that the senior ophthalmic surgeon at Guy's is also in favour of this operation. I cannot quite go so far as he does in thinking that "in course of time the operation will be adopted in every case of glaucoma," but I still think that with the aid of eserine very few cases will require any other operation besides sclerotomy, and that in cases where one sclerotomy seems to have failed it is better to repeat it than to resort to iridectomy. I have now under observation a patient upon whom I performed sclerotomy four years ago. The results are permanent and very good. The occasional loss of an eye from carrying the incision too far back must not be taken as an argument against sclerotomy properly performed. The same thing may and has happened after iridectomy, and possibly, in some instances, from the same cause.

I am, Sir, yours obediently,
W. SPENCER WATSON, F.R.C.S.

Henrietta-street, Cavendish-square, Aug. 25th, 1880.

WOOLSORTERS' FATE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 9th, 1878, and again in the No. for December 20th, 1879, appear "annotations" directing attention to the deleterious effects of the dust upon the woolsorters, and it is added that alpaca wool, mohair, &c., seem, besides, to have the power of producing blood-poisoning.

As to mohair, &c., I know nothing, but as to alpaca I beg to offer the following observations:—

Arequipa is the centre of the alpaca trade—nine-tenths of the export passing through this town, and the business is entirely in the hands of foreign houses, chiefly English. The alpaca lives in the interior at heights ranging from twelve to upwards of eighteen thousand feet above the sea-level. The wool is brought down here by mules, ponies, llamas, and a little by railway. When it arrives it is teased out, well shaken, picked, sorted, and then pressed into bales. This work is all performed by women with the exception of the pressing, which, requiring considerable muscular exertion, is done by men. All these manipulations are conducted in sheds which are freely ventilated by natural means. I have frequently visited these sheds, and always found the air highly charged with dust.

And now as to the health of the workpeople. I may premise that I have been in medical charge of the foreign houses for about twenty years. If any of the workers, especially of the old hands, are sick I am requested to see them, as a good woolsorter who is honest—i.e., cannot be bribed to pass bad wool—is a person of value. Upon taking a review of their cases I cannot find anything particular about them. Certainly I find no evidence of any fever (blood-poisoning) or other disease peculiar to them. Even with respect to lung affections, they seem to be no more prone than the rest of the population. In fact, they are perhaps more healthy than their class generally, which may be attributed to their work being light and well paid. On entering these sheds one sees a number of small, somewhat stout, healthy-looking Indian women, some of them with infants. These latter lie about amongst the wool, and are quite healthy. Some of the present sorters may be said to have grown up in the sheds, and yet show no signs of disease. The men are necessarily strong and healthy, otherwise they could not do the work.

Taking a more general view of the subject, I am disposed to think that the bad effects of *mere* dust—that is, dust which is not seriously irritating, owing to some particular mechanical or chemical property, such as grinders, patent fuel makers, &c.—are exaggerated, and that these effects ought rather to be attributed to badly-ventilated rooms and consequent rebreathing of air, to low pay and consequent bad alimentation. If dust *per se* were so injurious, and not, as a rule, so easily got rid of by the action of the ciliated epithelium of the lung, many more people ought to suffer. Take, for example, the muleteers who travel about this coast. Owing to the scarcity of rain they are from morning to night in a cloud of dust raised by their mules. On arriving at their destination they are thickly covered with dust. These men may get an attack of bronchitis or pneumonia, as they sleep in the open air taking care of their mules, but they are not liable to any form of phthisis or other chronic lung disease.

Allow me to repeat that as to mohair, camel's hair, or

other Eastern wools, I cannot say whether they may give rise to bacillus anthracis or any other form of blood-poisoning; but I think I have proved that alpaca must be held guiltless.

I am, Sir, yours truly,

J. DICKSON HUNTER, M.D. Edin.

Arequipa, Peru, April, 1880.

SUPRAPUBIC PUNCTURE OF THE BLADDER.

To the Editor of THE LANCET.

SIR,—Attention has been recently drawn in your columns to the value of suprapubic puncture of the bladder in cases of retention. This operation has been justly extolled as of great value; and, so far as I am aware, the method of puncture adopted when an aspirator is used is considered to be a perfectly safe measure, and to have had so far no case of death recorded against it. I think it might be of use, therefore, to record a case where the results were not so satisfactory.

A few years ago a young man with a history of previous stricture was admitted into the London Hospital with retention that had appeared suddenly after exposure to cold and an outburst of drunkenness. All attempts at catheterism failed, as did also the treatment by hot baths, opium, and a dose of croton oil. The bladder was, therefore, aspirated above the pubes without preliminary incision. Next day the patient passed water spontaneously. On the third day a small catheter was passed, and the patient insisted on leaving the hospital. In less than a week he returned very ill, developed symptoms of pelvic cellulitis, and died in about three weeks. The stricture had given no further trouble. The post-mortem showed no trace of the wound in the bladder, but very extensive suppuration of the pelvic connective tissue.

Another case in the hospital about the same time gave great support to the other side of the question of prognosis. A seaman started on a voyage with a stricture and a medium-sized catheter. He passed the catheter once a week. One day, when on the high seas, he found himself unable to pass either his urine or his instrument, and no surgeon was on board. His symptoms of retention becoming very severe, he deliberately punctured his bladder in the middle line above the pubes with the small blade of a penknife, allowed the water to run out by the side of the knife, and then introduced his catheter into the bladder through the wound. He kept it there until he found he could pass it *viâ* the urethra The wound healed well, and the man recovered without an evil symptom.

I remain, Sir, yours faithfully,

FREDERICK TREVES, F.R.C.S.,
Assistant Surgeon and Senior Demonstrator of Anatomy to the London Hospital.

Gordon-square, W.C., Aug. 1880.

WORK AND PAY IN PROVIDENT DISPENSARIES.

To the Editor of THE LANCET.

SIR,—The subject of Provident Dispensaries being one of considerable importance and interest to the medical profession, I should be glad if you would allow me to publish the following account of one which has been working for two years and a half.

In the beginning of 1878 Messrs. Tangye Brothers, engineers, Cornwall Works, Birmingham, started, at their own expense for twelve months, a Provident Dispensary for their workpeople, their wives and families, after which time their *employés* were to contribute towards its support.

The cost of making certain alterations in a house already existing in connexion with their works, furnishing the same for the resident medical officer, and as waiting and consulting rooms, fitting the dispensary with all necessary appliances, supplying drugs and surgical instruments, together with the salaries of the medical officer and dispenser, was upwards of £1000.

At the end of 1878 it was decided that the *employés* should contribute as follows towards its support: men 4*s.*, women 4*s.*, children over thirteen years of age 4*s.*, other children 1*s.* 6*d.*, per annum; families consisting of five or more children under thirteen years of age were to pay a maximum sum of 15*s.* per annum for attendance upon all members. These sums were not to include attendance in midwifery cases or vaccination, these being left to the discretion of the medical officer.

The services of the medical officer and dispenser were entirely retained for attendance on members of the dispensary.

The following is the account for the six months from January 1st to July 1st, 1880:—

There are now 2890 members, composed as follows: men, 1297; women, 554; children over thirteen years of age, 60; other children, 1056; and 57 families included in the 15*s.* per annum fee. The total amount received has been £237 0*s.* 4*d.* The expenditure has been as follows: salaries of medical officer and dispenser, £191; drugs, £57 12*s.* 5*d.*; surgical instruments, &c., £2 8*s.* 5*d.*; railway fares, &c., £1 3*s.* 4*d.*; rent, rates, and taxes, £17 10*s.*; sundries (coal, gas, &c.), £6 6*s.* 9*d.*; total, £276 0*s.* 11*d.* Leaving a deficiency on the half year of £39 0*s.* 4*d.*; besides which there is no allowance made for the use of a conveyance, which has been required on an average twice each week.

The amount of work done stands as follows:—The number of fresh cases of illness has been 1728: of these 877 have been men, 280 women, 571 children; 487 have been too ill to come to the dispensary, and have therefore been visited at their own homes, and to these 3078 visits have been paid. There have been 5250 consultations at the dispensary, and 8463 bottles of medicine, &c., have been supplied.

It was thought that it would be of interest to keep an account of the number of men, women, and children visited during the months of May and June; this was accordingly done with the following result: men 25; women 60; children 88; total 173.

I am, Sir, yours faithfully,

CORDLEY BRADFORD, L.R.C.P., M.R.C.S., L.S.A.

Smethwick, August, 1880.

INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Several recent numbers of THE LANCET which have reached me show that, contrary to the spirit of the motto which heads your correspondence columns, and in misapprehension I feel quite sure of the actual merits of the case, you have refused admission to letters from officers of the Indian Medical Service on the subject of the recent changes in their Service. Apart from the homely proverb that "they who wear the shoe know best where it pinches," the fact that such a number of letters have been addressed to you, that a deputation had lately an interview with the Secretary of State for India, that numerous petitions are at the present time being submitted to the Viceroy, and that others are in course of presentation to Parliament, might have convinced you that there was "something in" the agitation. There are several events in the history of our service which show that we are far from being an unreasonable body of men. Your strong point appears to be that we are wrong to object to the principle of selection. We are very far from doing so, if the principle is fairly applied, and, indeed, in combination with seniority, it has always governed promotion to the administrative ranks in our service. But what has happened to us is this: that though ours is in its essence a military service, many of us who have stuck to the legitimate, that is the military, line, find that as we are approaching the period at which we might expect promotion, and should undoubtedly have got it under the old rules, it is retarded or altogether taken out of our reach by the administrative rank having been split into two, a military and civil, the appointments in the latter being reserved exclusively for men who have passed most of their service in civil employ. The effect of this rule is that the promotion of some of our most distinguished men has been greatly retarded, and in some cases rendered impossible; for it must be borne in mind that the superannuation rule requires a man to retire at fifty-five if he has not been promoted to deputy surgeon-general; consequently a man who enters the service at twenty-five cannot get promotion at all unless it comes to him within the thirtieth year of his service, and it is exceedingly doubtful whether it will ever under the new rules be attained within that period; seeing that before the split in the administrative grade twenty-six years was an average service on promo-

tion, it is not too much to say that it has been retarded at least four years.

When, in conclusion, I say that this misfortune and disappointment of their hopes has happened to men whose only fault has been that they have stuck to the military line, I think it will be conceded that the widespread dissatisfaction which exists is not to be wondered at. I purposely omit any allusion to the subordination of the military portion to the Army Medical Department, our inferior rank, rates of pension, paucity of honours, &c.

I am, Sir, your obedient servant,

Bengal Presidency, Aug. 4th, 1880. F.R.C.S. ENG.

*** Our correspondent must have read "several recent numbers of THE LANCET" very carelessly if he drew from them the conclusion that we do not think the officers of the I.M.D. have legitimate cause of complaint and very real grievances. But we do not consider exaggerated or incorrect statements to be the most likely means of having them remedied. In the above letter our correspondent writes of "the administrative rank having been split into two, a military and civil, the appointments in the latter being reserved exclusively for those who have passed most of their service in civil employ." But he omits to say on what authority this statement is made, and we are not aware of the existence of any such rule. On the contrary, the General Order regulating the service states that it will be the duty of the Surgeons-General, *inter alia*, "to propose transfers between the military and civil departments; to recommend for promotion to the administrative grades," &c. "Selections will be made in each Presidency from the whole Indian Medical Service of that Presidency, and the principles of selection hitherto followed in making such appointments will be observed." "Although the administration of the Indian Medical Department is divided into two branches, civil and military, Indian medical officers will remain, as now, military officers, those in civil employ being only lent to the civil department."—ED. L.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, Aug. 26th, a return was presented, on the motion of Mr. Alex. Brown, showing, in a tabular form in order of years, all the local visitations which have been made by medical inspectors, &c.

On Saturday Mr. Stansfeld gave notice that next session he would bring in a bill to repeal the Contagious Diseases Acts.

On Monday Mr. Callan moved for a return, which was ordered, of correspondence between the Inspector-General of Constabulary and the Governors of Dr. Steevens's Hospital relative to the treatment of constabulary patients in the said hospital, referred to in a letter of T. H. Burke, Esq., under-secretary to the secretary of the Board of Superintendence of the Dublin Hospital, under date the 24th day of October, 1878.—Mr. Firth put a series of questions, which appeared in last week's LANCET, as to the destruction at Billingsgate, in the month of July, of ninety tons of fish which was unfit for human food. Mr. Arthur Peel replied that seventy-five tons of the fish came by land carriage, which was more likely to spoil them than carriage by water, and of the remainder twelve tons were taken from a vessel which had lost its stock of ice. The bad condition of the fish was not owing to insufficient market-accommodation, but to the hot weather and dulness of sale, in consequence of the unusually large quantity brought to market in July. Greater facilities for sale would perhaps enable an earlier distribution of the fish to be made; but the Corporation of London denied that their market monopoly was prejudicial to the public. However, they would offer no resistance to the establishment of another market if it were proved to be necessary, and the Home Secretary was willing to consider any well-founded representations which would be made to him on the subject.—Mr. Arthur Moore gave notice that he would make the following inquiries of the Chief Secretary for Ireland: "Whether his attention has been called to the statement in Dr. M'Cabe's recent report on Belfast Workhouse, that within the six months from January to June eighty-two infants have died in that institution; and if he would inform the House what percentage of the whole number of infants this represents. Whether in the case of persons not entitled to gratuitous relief, but seeking treatment for infectious diseases in Irish Poor-law hospitals, and willing to pay for the same, there is any regulation which precludes them from using their own clothing, and compels them to adopt the regular pauper-branded garments; and, if such regulations exist, whether he is prepared to modify them, with the view of inducing the middle classes to avail themselves of these hospitals, and thereby raise the standard of medical treatment, and avoid grave dangers to public health."

On Tuesday the sixteenth detailed annual report by the Registrar-General of births, marriages, and deaths in Ireland during the year 1879 was presented.—On the motion of Mr. Bellingham, a return was presented, showing the murders, &c., in England, Wales, and Ireland in three years, ending respectively the 29th day of September and 31st day of December, 1879. Another return, moved for by the same hon. member, was presented, showing how many Boards have availed themselves of the Dispensary Houses (Ireland) Act, 1879.—Dr. Farquharson gave notice of the following questions: To ask the Under Secretary to the Admiralty whether or not it is the intention of the Admiralty, in view of the existing unpopularity of the Naval Medical Service, and the consequent difficulty in obtaining eligible candidates, to take immediate action to remedy the grievances of the Service, and place it on a footing of equality with the Army Medical Service; whether the report of the Committee appointed by the late Board of Admiralty to inquire into the acknowledged grievances of the Naval Medical Department, as announced by the late First Lord of the Admiralty in introducing the Naval Estimates for the current year, has been completed and presented to the Board; and whether or not it is correct that only seven candidates were found eligible during the last twelve months to fill the vacancies, seventy in number, at present existing on the list of naval medical officers.

On Wednesday, a petition for redress of grievances was presented from Surgeon-Major Robert Bird, of the East India Medical Department. A return was presented, on the motion of Mr. Hopwood, of the proportion of deaths from small-pox amongst children in 1847, and from 1855 to 1878. Mr. A. Moore called attention to certain grave abuses and irregularities in the management of Belfast Workhouse, and Mr. Forster promised inquiry into the matter. Subsequently Mr. Moore gave notice that next session he would move a resolution demanding a reform of the Irish Poor Law and its administration.

On Thursday, replying to Mr. Moore, Mr. Forster said the regulations of the workhouse hospitals did not admit of patients wearing their own clothes; and that was a very necessary regulation, as otherwise, if convalescents returned home in the same garments as they had worn in a fever hospital, the disease would quickly spread. At the same time, there was no regulation that patients in a fever hospital should wear the regular pauper garments, and a circular had been issued to guardians forbidding it. — Mr. A. M. Sullivan asked the Secretary of State for War if he would lay upon the table copies of all letters and telegrams relative to the medical appointment offered by the War Office to and accepted by Dr. R. D. Nicolls, of Navan, but which was subsequently prevented, without any explanation to Dr. Nicolls. Mr. Childers said he had looked into the papers in this case, which occurred before he took office. The post accepted by Dr. Nicolls was in the gift, not of the War Office, but of the officer commanding the Navan Division, subject to the approbation of the General commanding in Ireland. The appointment of Dr. Finigan was duly made by them, but some of the communications sent by the War Office to Dr. Finigan were very carelessly written, and he (Mr. Childers) had severely reprimanded the officer in fault.—Sir Henry Peek asked the Secretary of State for War whether his attention had been called to a report made by the officers of health to the Wandsworth Local Board relative to the sanitary condition of the Royal Patriotic Schools on Wandsworth Common, in which it is stated that the sewage lies in pools on the land adjoining the schools, and has been the cause of fever amongst the children? And, whether he proposed to take any steps to prevent these schools becoming a source of danger and disease to the neigh-

bourhood? Mr. Childers replied that he had no authority whatever over the schools of the Patriotic Society. They were managed by a Royal Commission entirely independent of the War Office. To enable him, however, to answer this question, he obtained from the secretary to the Commission an explanation, which he did not consider satisfactory, and he had caused an official communication to be addressed to the Commission.—In answer to Mr. Moore, Mr. Forster said he was making inquiry as to the high rate of mortality amongst the infants in Belfast workhouse, and it appeared to be about 30 per cent.

Obituary.

HENRY FRANCIS BURDETT, M.R.C.S.

WE record with regret the death of Mr. Henry Francis Burdett, Surgeon, of Birmingham. Although Mr. Burdett took little part in questions affecting the politics of the profession, he exercised at one time no inconsiderable influence. He was in all respects a good representative of the general practitioner of a past generation, and with this aspect of his life it may not be uninteresting to deal briefly.

Born at Gilmorton, in Leicestershire, of which place his father, the late Rev. D. J. Burdett, M.A., was the rector, he was sent to Uppingham School at an early age, and remained there till he became apprenticed to the late Mr. Morgan, of Lichfield. He remained with the latter for four years, and then entered at University College, London, where he completed his medical education. He passed the L.S.A. examination in 1836, and became M.R.C.S. Eng. in 1837. Possessed of these qualifications, he married a daughter of Mr. Jones, a surgeon at Lutterworth, and at once settled in Birmingham. Without friends or a connexion of any kind, he began to fight the battle of life with resolution, and, having acquired an exceptionally good knowledge of his profession, his progress was satisfactory and reassuring. In the conduct of his business the chief characteristics of the man soon made themselves conspicuous. Ever intolerant of imposture, Mr. Burdett was noteworthy for the frankness and candour with which he treated all who consulted him. Imbued with a belief that the aim of a general practitioner should be to secure as far as possible cash payments, and such practice mainly as would guarantee a certain income, he soon became surgeon to numerous sick clubs and friendly societies. It was one of his axioms that it is desirable that an account should immediately follow the termination of an attendance. By this method gratitude becomes the stimulus which secures prompt payment. An eloquent speaker, it was his custom to attend the annual gatherings of the Odd Fellows and Foresters. At such meetings his practical eloquence was much appreciated, whilst its forcible common sense led to the effectual removal of many abuses. In a few years Mr. Burdett's practice became a large and increasing one, and till within two years of his death he continued to discharge the active duties of his profession with untiring energy and commendable perseverance. His success was not inconsiderable, for he has left his wife a beautifully situated and fairly large estate at Knowle, Warwickshire, where he latterly resided. His views upon professional subjects were strongly conservative. He could not be got to admit that the new order of things was on the whole better than that of an earlier period, and he held the doctrine that every member of the profession should serve an apprenticeship, and should devote the whole of his time and energies to his profession.

Personally, Mr. Burdett was one of the kindest and most liberal of men. Very many can lovingly testify to this fact, and at his funeral some of his old patients came long distances that they might place a last offering of affection on his grave. The coffin was covered with flowers, and many will sincerely mourn his decease. The deceased gentleman was typical of a class of men who are rapidly disappearing, and we are not sure that their loss to the profession is either small or inconsiderable.

Mr. Burdett died at his country residence, The Coppice, Knowle, Warwickshire, on August 22nd, 1880, and was buried in the family vault at Packwood, in the same county, on Friday, August 27th. In accordance with the written instructions, found after his death, the funeral was of the plainest possible description—no crape, hat-bands, or plumes were to be seen. He was carried to the grave by eight of his old men-servants; and his coffin bore, by his desire, the inscription—"Henry Francis Burdett, aged 65, formerly a surgeon of Birmingham, and always a firm believer in salvation through our Lord Jesus Christ." He leaves a widow, one daughter, and three sons.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 26th:—

Bertolani, John Hewetson, Park-road, New Wandsworth.
Collins, Edward Tenison, Bridge-street, Wednesbury.
Parker, Hibbert Sullivan, Disraeli-road, Putney.
Thomas, John Lloyd, Beaumaris, N. Wales.

The following gentlemen also on the same day passed their Primary Professional Examination:—

William Edward Ranson and Michael William Russell, Middlesex Hospital.

At the recent examination for the prizes in Materia Medica and Pharmaceutical Chemistry, the successful candidates were—

1st.—Arthur William Wheatly, student of St. Bartholomew's Hospital. A Gold Medal.
2nd.—William Watson, student of Guy's Hospital. A Silver Medal and a Book.

A SUM of £1000 has been awarded to the London Hospital by the rector and churchwardens of the parish of St. Edmund the King and Martyr, out of surplus funds of a parish charity of which they are the trustees.

THE wife of a labouring man, in the Old Kent-road, was last week delivered of four children at a birth, three boys and a girl; two only have survived. The mother on a previous occasion had given birth to twins.

THE sting of a wasp is stated to have been the immediate cause of the death of a woman at Coggeshall, a few days since. The deceased was, it would appear, the subject of heart disease, and fatal syncope ensued a few minutes after the attack of the insect.

A FRESH series of lectures to the metropolitan police on the first treatment of injured persons has been organised by the St. John Ambulance Association. The classes will meet at Scotland-yard, Arbour-square, Kennington-lane, Blackheath-road, Albany-street, and Twickenham.

LADY HARRIET SCOTT BENTINCK has given £4000 to the International Hospital at Naples, to enable the Committee to acquire a building of their own. It is stated to be one of the conditions of the donation that an English-speaking physician and an English nurse be always kept in the hospital, and that, in case of the dissolution of the hospital, the money be handed over to some other charitable institution of the English community at Naples.

DEATH FROM HYDROPHOBIA.—A little girl died last Tuesday, in Belfast, from hydrophobia. Deceased was bitten by a rabid dog on the 21st of July last, and was conveyed to the Belfast Royal Hospital where, the wound was cauterised. On Saturday last symptoms of the disease manifested themselves, and the sufferer succumbed three days afterwards.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ABBOTT, C. E., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer for District No. 7 of the Braintree Union.

BENTHALL, A. E., M.R.C.S.E., has been appointed House-Surgeon to the Hartlepools' Hospital and Dispensary, Hartlepool.

BISS, C. Y., M.A., M.B., M.R.C.P.I., M.R.C.S.E., has been appointed Assistant-Physician to the Metropolitan Free Hospital, Spitalfields, London, E.

BROMLEY, J. B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Tilbury Parish of the Halstead Union.

EDMUNDS, W., M.D., F.R.C.S.E., has been appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, vice Bowlby, resigned.

GALPIN, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for District No. 6 of the Braintree Union.

HAYWARD, J. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Vaccinator for the Whitstable District of the Blear Union, vice Mr. Williams, resigned.

HEALE, A. L., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Provident Dispensary and Cottage Hospital, the Ladies' Charity, Odd Fellows' Club, and Public Sanatorium, Warwick, vice J. R. Nunn, deceased.

MCBEATH, W., M.D., C.M., has been appointed Medical Officer to the Fourth District of the Eccleshall Bierlow Union.

MCLEARN, I. C., M.D., M.Ch., L.M., has been appointed Medical Superintendent of the Highgate Infirmary, vice Bruce, resigned.

MELLER, C. M., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health and Public Vaccinator for the Carisbrooke District of the Isle of Wight Union.

MILLS, S. B. A., L.R.C.S.Ed., has been appointed Medical Officer to the Banagbmore Dispensary, Newry Union.

PALMER, B. A., M.D., has been appointed Medical Officer to the Crossmaglen Dispensary, Castleblaney Union.

REYNOLDS, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Stambourne and Ridgwell Parishes of the Halstead Union.

RICHARDSON, T. W., M.R.C.S.E., L.S.A.L., has been appointed one of the Medical Officers to the Free and Provident Norwich Dispensary.

SANDFORD, H. V., M.D., has been reappointed Medical Officer of Health for the Combined Rural Sanitary Districts of Bromyard, Hereford, Ledbury, Leominster, and Weobley Unions. Salary £500 per annum.

SIMPSON, T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for District No. 5 of the Braintree Union.

THOMSON, R. T. W., M.B., C.M., has been appointed Medical Officer to the Alwinton District of the Rothbury Union.

TRIMBLE, C. J., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer to the Fifth District of the Preston Union.

VAISEY, T. F., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Bucks General Infirmary, vice Blood, resigned.

Births, Marriages, and Deaths.

BIRTHS.

ADAM.—On the 25th ult., at Crichton House, Dumfries, the wife of James Adam, M.D., Medical Superintendent Crichton Royal Institution, of a son.

BULL.—On the 28th ult., at Holland House, New-cross-gate, S.E., the wife of William Bull, F.R.C.S., of a daughter.

GREENHILL.—On the 27th ult., at Cotehele-terrace, Stoke, Devonport, the wife of J. R. Greenhill, F.R.C.S.E., Surgeon-Major, Army Medical Department, of a son.

MITCHELL-BANKS.—On the 25th ult., at Rodney-street, Liverpool, the wife of W. Mitchell-Banks, M.D., F.R.C.S.E., of a son.

PEACOCK.—On the 24th ult., at Forston House, near Dorchester, the wife of Henry George Peacock, L.R.C.P., M.R.C.S.E., of a son.

PRICKETT.—On the 26th ult., at Albion-street, Hyde-park, the wife of Marmaduke Prickett, Esq., M.D., of a son.

PRITCHARD.—On the 29th ult., at South-hill-park, Hampstead, the wife of Urban Pritchard, M.D., F.R.C.S.E., of a son.

MARRIAGES.

ALLCHIN—HOLLAND.—On the 19th ult., at the Church of the Ascension, Esopus, N.Y., William Henry Allchin, M.B., F.R.C.P., of London, to Margaret, elder daughter of Alexander Holland, of New York.

BLACKLEY—BURGESS.—On the 17th ult., at St. John's, Hackney, J. Galley Blackley, M.B., of Gordon-street, Gordon-square, to Fanny Collyer, elder daughter of Frederick J. Burgess, F.R.C.S.E., Ext. L.R.C.P.L., of Grove-place, Hackney.

POOLEY—KENDRICK.—On the 10th ult., at the Parish Church, Bushbury, by the Rev. M. B. Moorhouse, Vicar, assisted by the Rev. R. S. Rowan, Vicar of St. James's, Rochdale, Dr. R. G. Mason Pooley, of Rochdale, to Rosa, second daughter of David Kendrick, Esq., J.P., of Oxley House, Wolverhampton.

WHITE—PULLEN.—On the 25th ult., at the Church of St. Stephen the Martyr, Avenue-road, N.W., O. M. White, M.R.C.S.E., of Tottenham, to Annette Jane, daughter of W. H. Pullen, of Wellington Mansion, St. John's-wood.

WILLANS—JEUNE.—On the 25th ult., at The Slad, William Blundell Willans, Esq., M.R.C.S.E., of Much Hadham, to Henrietta Amelia (Amy), younger daughter of the late Lieut. F. A. Jeune, 25th B.N.I., and stepdaughter of John C. Collins, M.D., of Steanbridge, near Stroud.

DEATHS.

LAWRENCE.—On the 31st ult., at Benhall Vicarage, Suffolk, after a short illness, John Travers Lawrence, M.R.C.S.E., of Launceston.

MITCHELL.—On the 31st ult., at 21, Pepys-road, Hatcham, S.E., Robert Mitchell, Surgeon, formerly of Manor House, Deptford, aged 75.

NICHOLAS.—On the 28th ult., accidentally drowned while bathing in the Orwell, Ipswich, George James, second son of G. E. Nicholas, M.D., of Wandsworth, aged 18.

PRITCHARD.—On the 27th ult., at Crescent Lodge, Kingston, near Portsmouth, John Frederick Pritchard, Staff-Surgeon R.N. (retired), third son of the late Vice-Admiral Pritchard, R.N., aged 52.

WAKE.—On the 16th July, at Limocksloof, near Fauresmith, Orange Free State, South Africa, Edward Baldwin, eldest son of E. G. Wake, M.D., of Upper Holloway, aged 20.

WHITMORE.—On the 25th ult., at his residence, Castle Hill, Ealing Dean, John Whitmore, M.D., formerly of Wimpole-street, Medical Officer of Health for Marylebone, in his 70th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at ... a.m. by Steward's Instruments.)

THE LANCET OFFICE, September 2nd, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 27	30·13	N.E.	62	60	80	69	50	..	Overcast
,, 28	30·21	N.E.	64	62	106	82	60	..	Overcast
,, 29	29·18	E N E	66	61	106	76	56	..	Fine
,, 30	29·96	E.	68	63	99	72	50	..	Hazy
,, 31	30·02	W.	63	61	90	70	58	..	Overcast
Sept. 1	30·25	N.W.	62	59	105	77	57	..	Fine
,, 2	30·27	W.	67	63	101	76	50	..	Hazy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 11th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post.*

IGNIPEDITES.

SURGEON-MAJOR B. EVERS, M.D., writing in the *Indian Medical Gazette* on this obscure disease, recommends as the treatment to be adopted the use of iodine and its preparations. The relief following the employment of this drug is, he states, very gradual, and it will only be after a fortnight or three weeks that the patient will recognise that the burning in the soles of the feet is less. Later Dr. Evers administers dilute phosphoric acid, strychnia, quinine, and iron.

Dr. Ruedi, (Davos.)—The communication should be forwarded to the magazine in which the article referred to appeared.

THE NITRIC ACID TEST OF URINE.

To the Editor of THE LANCET.

SIR,—I should like if one of your numerous readers could give me, through the medium of your journal, an explanation of the following curious phenomenon:—Twice lately, on adding a few drops of pure nitric acid to some urine which had been boiled, the latter immediately turned to a deep claret colour, with some amount of effervescence. The specimens were both turbid, of a dirty brown colour, loaded with lithates; reaction acid; specific gravity about 1030; a trace of albumen in one, none in the other; no sugar in either; pus in large quantities in both.

I remain, Sir, yours truly,

Cardiff, Aug. 24th, 1880. M.D.

*** The development of colour, referred to by our correspondent, on the addition of pure nitric acid to urine that has been boiled has been the subject of much discussion among urologists. The opinion generally held is that it is due to the oxidation changes of indican—a substance which exists in extremely minute quantities in normal urine, and which in some conditions may become increased. The development of the reaction is generally noticed in the urines of patients suffering from wasting diseases, as phthisis, chlorosis, Bright's disease, &c.—ED. L.

TESTS FOR PURE COFFEE.

THE last-issued number of *Cassell's Magazine* contains the following description of some simple tests for the genuineness of coffee:—"Take a little of the coffee and press it between the fingers, or give it a squeeze in the paper in which it is bought. If genuine, it will not form a coherent mass, as coffee grains are hard, and do not readily adhere to each other; but if the grains stick to each other, and form a sort of 'cake,' we may be pretty sure of adulteration in the shape of chicory, for the grains of chicory are softer and more open, and adhere without difficulty when squeezed. Again, if we place a few grains in a saucer, and moisten them with a little cold water, chicory will very quickly become soft like bread-crumbs, while coffee will take a long time to soften. A third test: Take a wineglass or a tumblerful of water, and gently drop a pinch of the ground coffee on the surface of the water without stirring or agitating. Genuine coffee will float for some time, whilst chicory or any other sweet root will soon sink; and chicory or caramel will cause a yellowish or brownish colour to diffuse rapidly through the water, while pure coffee will give no sensible tint under such circumstances for a considerable length of time. 'Coffee mixtures' or 'coffee improvers' should be avoided. They seldom consist of anything but chicory and caramel (burnt sugar), which, of course, deceive by the rich, dark infusion they give."

MEDICAL ETHICS AND PRACTICE IN NEW ZEALAND.

To the Editor of THE LANCET.

SIR,—Having just noticed in No. XIII. of THE LANCET two communications on the title of "Doctor" and "Medical Advertising," I wish to call your attention to the state of these things in this and other colonies.

The Medical Acts here are of such comparatively recent date, and administered with such culpable laxity, that the amount of entirely unqualified work done is very great. Chemists, indeed, all practise openly and without check, denominating themselves on their shop-fronts as "dispensing and prescribing chemists," and indeed often *with* the sanction of the law, as illustrated by a decision given a short time since by the magistrate of Wellington, in which he *acquitted a chemist of malpraxis* on the ground that he was *fit to undertake slight cases*, having been the resident dispenser at the hospital for some years. How can any man without a thorough professional education diagnose between a slight case and another? For these reasons the title of "doctor" is universally employed in the colonies, as, whatever qualifications a man holds, he is regarded by the outside public as an unqualified man unless he calls himself "Dr."

Again, in the matter of the reprehensible practice of advertising which you so strongly condemn. The practice prevails here extensively, and it is regarded as so absolutely incumbent on a man starting in a new place to do so, that all do so at first, many permanently. Enclosed I send you a beautiful specimen which I cut out of a New Zealand paper which came into my hands, and in which there were also advertisements by an M.B. Lond. and a German Æsculapius. The doctor of the advertisement I send you has the qualifications he describes.

As to any etiquette prevailing amongst practitioners in New Zealand at least, I can only say that it has been an unknown quantity among pretty well all whom I have had the honour of meeting.

Yours &c. (enclosing card),

New Zealand, December, 1879. DOCTOR.

J. F. N.—The information given by our correspondent is not sufficiently precise. The Warrant to which he refers was issued on October 1st, 1858. If, as seems probable, the training was over by that date, he had not the slightest claim to the allowance at F.O.'s rate, and if it had been issued to him in error, he was bound to refund it.

POISONING BY CHLORAL HYDRATE.

To the Editor of THE LANCET.

SIR,—The amount of chloral hydrate necessary to cause death seems rather uncertain. I should be very glad to know from any of your readers who may have had experience in the matter what they consider the smallest fatal dose for an adult.

I was called in last June to attend a lady, aged forty-seven, who had been suffering severely from neuralgia, and who had spontaneously flown to chloral hydrate for relief. When I arrived I found her insensible, or at least very nearly so. She uttered a few incoherent words at intervals, but did not recognise me, though we were well acquainted. The usual symptoms of poisoning by chloral were present. I found a six-ounce bottle by her bedside containing some solution of chloral hydrate, and which was labeled "Solution of chloral hydrate, ten grains to the drachm." Her friends informed me that this solution had been made up at her request by a neighbouring chemist, and that she had taken several doses during the night; in fact, all that I saw gone from the bottle, which had been quite full. I took home the bottle, and found seventeen drachms absent; in other words, she had taken 170 grains of the drug in about twelve hours. She made a good recovery, but still fails to perceive the danger she had run.

Should a chemist be allowed to sell such a solution to an ordinary customer (with whom he may be acquainted) without having a written order or a physician's prescription?

I am, Sir, yours truly,

A. ST. CLAIR BUXTON.

The Grove, Hammersmith, Aug. 24th, 1880.

Ignoramus.—By the Births and Deaths Registration Act, 1874, sec. 40, it is enacted that "any person who makes any false certificate or declaration under or for the purposes of this Act, or forges or falsifies any such certificate or declaration, or any order under this Act, or, knowing any such certificate, declaration, or order to be false or forged, uses the same as true, or gives or sends the same as true to any person, shall for each offence be liable on summary conviction to a penalty not exceeding ten pounds, and on conviction on indictment to fine or to imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years."

Mr. Leighton Kesteven's paper will be published in an early number.

"TREATMENT OF SCARLET FEVER BY WARM BATHS."

To the Editor of THE LANCET.

SIR,—Referring to Dr. Lush's letter in THE LANCET for August 14th, I wish to say that if he adopts the plan of giving three warm baths daily for every scarlatina case he may see, he occasions an unnecessary amount of labour and trouble. An ordinary case of scarlatina requires no such inconvenient treatment, and some very severe cases will not be benefited by it, but will frequently resist any treatment whatever. Dr. Lush's reasons for giving them are—"1st, they bring out the rash; 2nd, lower the temperature; 3rd, comfort the patient." In an ordinary case the first symptom is generally established, and is one of the diagnostic marks of the complaint. The second is also characteristic, and need not be interfered with; it will subside with the rash, or soon after. As to the third, Dr. Lush does not mention the actual temperature of his baths, but I presume them to be between 94° and 98°. This, no doubt, does *comfort* the patient, just as an ordinary warm bath comforts a person in good health; but I believe it exerts an inappreciable effect on the course of the disease.

In this hospital, where we have special facilities for bathing, we have treated 753 cases of scarlatina, with 94 deaths. Three of the latter have occurred *in* the warm bath or immediately on emerging. Bathing of some sort is daily employed here in almost all cases for the "comforting" effect, for cleanliness, and for hastening desquamation.

There is one application of the bath where I think I have seen in several cases good to result—at least some of them have recovered. When the patient has been restless, with foul ulcerated throat, offensive discharges from the nose, diffuse swelling about the glands of the neck, little or no rash, blue surface, quick pulse, high temperature or sometimes abnormally low, inability or unwillingness to take nourishment, and a general cadaverous look, I have had him placed in a bath of Condy's fluid and water at a temperature of 100°, and forcibly syringed his nostrils and fauces with the water from the bath, so as thoroughly to remove all offensive matter. Then after five or ten minutes, with only the head above the surface, the contents of a large jug of cold water has been dashed upon the forehead and scalp, an injection of beef-tea and brandy administered, and the patient wrapped up, still wet, in a blanket, and kept warm. Comfortable sleep is nearly always induced, from which the patient generally awakes improved. The treatment sometimes requires to be repeated two or three times at such intervals as the progress of the case suggests. The sleep and quietness produced by this means seem to me to be the main factors in any improved condition of the patient—sleep which cannot safely be procured in any other way that I know of.

The letter from Dr. Smith, of Leamington, published in your issue of to-day, somewhat qualifies Dr. Lush's statement, and I am inclined to think with him that "neither the warm, the tepid, nor the cold bath has any effect on the worst cases."

I am, Sir, your obedient servant,

The Fever Hospital, Bradford, Aug. 28th, 1880. W. K. RIX.

THE POOR-LAW MEDICAL SERVICE AND COMMISSIONS OF THE PEACE.

To the Editor of THE LANCET.

SIR,—Having been informed, by what appeared to be a reliable authority, that a district or workhouse medical officer would not be able to retain his appointment if placed on the Commission of the Peace, or if acting as a Justice, and feeling it was desirable to get a legal opinion thereon, I wrote to the Local Government Board on the subject, and received the enclosed reply, which it would be well to make public, as I feel satisfied that some Poor-law medical officers have hesitated to accept this distinction from fear of jeopardising their appointments.

I am, Sir, yours obediently,

Soho-square, Aug. 28th, 1880. JOSEPH ROGERS.

Local Government Board, Whitehall, S.W.,
11th August, 1880.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 30th ultimo, and, with reference to the inquiries which it contains, to inform you that an appointment as medical officer under their Regulations would not legally prevent the person so appointed from being placed on the Commission of the Peace or acting as a Justice. The Board may, however, observe that the Statute 5 and 6 Vict., c. 57, s. 14, would prevent his serving as a guardian so long as he holds the office of medical officer, as they consider that that enactment applies to *ex-officio* as well as to elected guardians.

I am, Sir, your obedient servant,

WALTER J. SENDALL, Assistant-Secretary.

Joseph Rogers, Esq., M.D., 33, Soho-square, W.

Æsculapius.—1. The student who had passed the primary examination for the L.R.C.P. Edinburgh, and who desired the diploma of the College of Surgeons of England, would have to pass the primary examination in England as if he had not passed in the Edinburgh College. He would have to do the same if he were a licentiate of the Edinburgh College or Colleges. In reply to our correspondent's second question, we can only answer, No.

ENTERIC FEVER IN TROPICAL CLIMATES: MILK-TREATMENT.

To the Editor of THE LANCET.

SIR,—The letter you publish in your issue of August 28th from Dr. G. Pina Almeida on the subject of typhoid fever touches on a point of considerable importance to my mind.

During the past sixteen years I have treated many cases of enteric fever both at home and abroad, and many years ago I came to the conclusion that a medicine as a cure for the disease did not exist, and that most of the remedies used were positively hurtful. During the past two years I had the opportunity of close daily observation in some twenty cases which occurred in India. Many were fatal, and to prevent the great mortality which is usual in such cases there all kinds of remedies were prescribed, but at the same time "plenty of nourishment" and stimulants were given to "support" the patients, and in my opinion herein lay the fatal mistake. Enteric fever, as I have seen it, whether in England, Central America, or India, is a febrile state, producing or accompanying subacute (verging into acute) inflammation of the gastro-intestinal tract of mucous membrane; and, considering this to be the case, I have always based my treatment on the supposition that everything, whether food or medicine, that passed over that tract while in an inflamed condition, or required an active state of its glandular system, must in the end tend to a fatal issue by the usual consequence of continued irritation—viz., wearing away of the structures implicated, of which mischief purging and hæmorrhage from the bowels are clear indicators.

To find, then, something that, while it would nourish and support the patient during a long illness, would not produce any irritation, or, if it did, the least possible, occupied my attention, and, so far as my own cases go, I was rewarded by not losing a single one. I refer to milk and cream. The moment I had reason to suspect that I was attending a case of enteric fever, I insisted by every means in my power on no other food being given (for twenty-five days if I was certain of the nature of the malady), except milk in various forms. Milk taken cold, two ounces every fifteen minutes, when not asleep, I advised; but patients did not like the too frequent draughts, and used to prefer to take it in larger quantities less often; if in the twenty-four hours two or three quarts were consumed I felt satisfied. Milk made solid by boiling with a small piece of Irish moss made a grateful change, a little cream and sugar being added; or the milk with its curd taken from it, in the form of whey, would be relished by a thirsty patient, with high febrile excitement. Thirst, the patient's greatest friend, is of frequent occurrence. Should the patient yield to the craving for food he so often feels, and take even a slice of bread, it will be almost certain to cause bowel irritation, producing thin stools or bleeding, as the case may be. If a stimulant is needed, a few drops of good brandy in the milk may be taken so long as two teaspoonfuls are not exceeded in the twenty-four hours; but I prefer to do without it if possible. Very little medicine of any kind was called for in my cases: glycerine, in twenty-minim doses, three times a day, or a little castor oil if the bowels are confined, and there is a tendency that way if the milk-treatment is faithfully carried out. I have found a concentrated lime-water added to the milk of use in some cases, but have been surprised how well the milk diet agrees with most people if taken without other food; but it must be persisted in for the entire time the disease is known to run its course, and, as far as my experience goes, that is from twenty-two to twenty-eight days. After the milk diet is begun to be varied, the change must be gradual, and much care and attention paid to local manifestations, should they appear.

I remember well a case that I was called in to see in consultation in India, where the milk-treatment was adopted for sixteen days, and where the doctor attending, thinking all was well and the patient convalescent, yielded to a request, and ordered beef-tea, wine, brandy, and chicken to "nourish the frame," as he told me afterwards, little thinking we would so soon meet together to inquire into the morbid condition of the affected parts on the post-mortem table.

To these remarks I would add that I have seen a persistent high temperature for over fifteen days end in the perfect restoration to health of the patient; and in enteric disease, as we see it in tropical countries, I never lose faith through the readings of the thermometer.

In conclusion, I must say I fully endorse the words of your correspondent when he says, "I do not allow any solid food, but give milk," though I can follow him no further, as I think beef-tea produces often much mischief in enteric fever.

Should this letter be the means of bringing before the notice of physicians the form of treatment I have mentioned, I feel certain that the death-rate of enteric fever, now so high in tropical climates, will fall, till it be regarded as one of the least fatal of all formidable affections the physician is called upon to treat.

I am, Sir, yours faithfully,

August, 1880. J. PERCIVAL HUNT, M.D.

An Old Subscriber.—The practitioner in question did not act consistently. According to his own statement, he took less than the minimum fee of a physician. He was clearly practising as a general practitioner. The practitioner was a "physician" in the sense of being a licentiate of a College of Physicians, but not in the sense in which the public understand the title. At the same time we cannot quite agree with our correspondent that prescriptions of general practitioners who dispense their medicines are the property of patients. Patients in such a case are supplied with medicines. If, in addition, prescriptions are asked for, it is not unreasonable that a fee should be charged by the practitioner.

HOSPITAL BED CARDS.

To the Editor of THE LANCET.

SIR,—A correspondent asks the opinion of hospital surgeons whether it is advisable to publish the disease under which a patient is suffering by placarding it above his bed. As a hospital surgeon, I decidedly negative the propriety or advantage of this being done. There are many cases in which it is desirable that neither the patient nor the other inmates of the ward should know the disease. There are other cases no doubtful (as in the late Guy's manslaughter) where the physician cannot give a correct diagnosis, and therefore may mislead the nurse (capital was intended to have been made of this at Dr. Pavy's expense). There are also not uncommon instances where the patient, being admitted for one disease, is afterwards found to have another and perhaps a more important malady.

Allow me to mention a point to which your leaders have not alluded. I was in court during Mr. Justice Hawkins's summing up, and he laid very great stress on the inaccuracy of the clinical reports, contrasting the statements therein made with the evidence given by Dr. Pavy, and condemning the discrepancies. Everyone must have felt the justice of his remarks.

As an old Guy's man I have been much pained by the notoriety of recent proceedings there, and sincerely trust that the comments of the learned Judge will induce the authorities of the hospital at once to "set their house in order," and give to the medical officers entire control over the treatment of the patients committed to their charge.

I am, Sir, yours truly,

August, 1880. W.

Mr. G. R. Gilruth will find the announcement on page 354 of our last number.

Rusty.—Dr. Wickham Legg's.

THE DOSE AND VALUE OF CALCIUM SULPHIDE IN ACNE.

To the Editor of THE LANCET.

SIR,—An article in one of your issues for this year, written by a gentleman whose name I regret I cannot at the moment recall, advocated the use of calcium sulphide in acne, in doses of one-tenth of a grain three times a day, which he cautiously increased in one or two cases to a much larger dose—namely, to one-fourth of a grain—with very excellent effect. The extreme difficulty, and at the same time the great desirability, of adding to those internal remedies which are of real efficacy in the treatment of skin diseases, induced me to follow his example, and to ascertain if possible his reason for cutting down his dose to such very moderate proportions. One opinion only, even when based on repeated observations, has, of course, but a very limited value. However, for what my statements may be worth, I am in a position to say that, commencing with one grain for a dose three times a day, I found no inconvenience experienced by the patients. I therefore increased it by degrees at short intervals up to five grains three times a day in several cases of acne. I am now going on to six grains three times a day, because I have found that a slight feeling of nausea produced by a five-grain dose disappeared speedily on a continuance of the dose. Now, even with this twenty-fold maximum dose, which is apparently tolerated without inconvenience of any kind, I have not, so far as I can judge, done very successfully—that is to say, I failed to effect such a modification of any of the numerous cases of acne in which I have tried it, as may, for example, always be obtained by the inunction of sulphur ointment. I hope that other observers may decide the matter more definitely.

I am, Sir, your obedient servant,

Weymouth-street, W., Aug. 19th, 1880. BALMANNO SQUIRE.

LOCUM TENENS.

To the Editor of THE LANCET.

SIR,—I have had some considerable experience as a locum tenens, from the consulting physician to the hard-working country practitioner, in practices where fifty visits daily and an average of three midwifery cases weekly, and in others where about five or six visits completed the day's work; but my fee has been invariably the same—£3 3s. per week, with travelling expenses. In one place I should be surrounded with every domestic comfort; in the next the living would be of a most meagre character, treated with suspicion, and the domestic arrangements most uncomfortable. In some I received an extra fee for my services, with thanks; in another I could not even get my fee. Could not some society be formed for registering gentlemen willing to act as locum tenens, and at the same time inquiry be made as to the work, responsibility, and general domestic arrangements of the principal?

I am, Sir, your obedient servant,

August, 1880. LOCUM TENENS.

URTICARIA.

To the Editor of THE LANCET.

SIR,—May I be allowed to ask, through your columns, whether any of your readers can help me to give a little boy, aged three, relief from very distressing attacks of urticaria. He suffers from habitual constipation, for which he has been treated in many ways. Every six weeks or so this trouble increases so much that nothing but enemas of oil are of any use. The urine shortly becomes scanty and of a deep orange tint, and the urticaria then appears. The spots occur everywhere, even on the face; but the chief distress arises from the soles of the feet, which become completely covered. Three or four doses of magnesia are administered each day, and many local applications have with but slight success been tried—viz., vinegar, tincture of benzoin, lead lotion, spirit lotion, and eau-de-Cologne, the latter seeming to be of the most service. The diet has been carefully looked to, without any benefit in warding off the attacks. It strikes me that in all probability there may be some empirical means known to some by which relief may be obtained, and I should be very grateful for information. I am, Sir, yours &c.,

August 31st, 1880. H. H. N., M.R.C.P. Ed.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Jas. Paget; Lieut.-Colonel Bolton; Surgeon-General Gordon; Mr. G. Fleming, London; Messrs. J. and A. Churchill; Dr. Heidenstam, Larnaca; Mr. S. Elliott; Messrs. Arnold and Sons; Mr. J. W. Smith, Doncaster; Dr. Drummond, Newcastle-on-Tyne; Mr. W. J. Tyson, Folkestone; Dr. Ruedi, Davos; Mr. St. Clair, Buxton; Mr. J. S. Hanson, London; Mr. Wheeler, London; Mr. Batty, Liverpool; Mr. L. Kesteven, Wellington, N.Z.; Mr. Mitchell, Norwich; Dr. Cameron, Huddersfield; Mr. A. H. Jones, Northampton; Dr. Hunt; Mr. Shore, Southampton; Mr. Prideaux, Wellington; Mr. Furlong; Mr. Groom; Dr. Sandford, Hereford; Mr. Rix; Dr. Holden, Sudbury; Mr. Christophers, Bath; Mr. E. Downes, Kashmir; Dr. C. Neill, Ryde; Mr. Davis, London; Mr. Dobbin; Mr. Armstrong, Newcastle-on-Tyne; Mr. P. Bell, Edinburgh; Mr. Bate; Mr. Thomas, Glasgow; Mr. T. Cooke; Dr. Rogers, London; Mr. Gilbert; Dr. v. Harlingen, Philadelphia; Mr. Moxhay, Reading; Dr. Page; Mr. Hind, London; Mr. J. M. Scott, Lyminster; Mr. Hartley, Brixton; Mr. Symonds, Oxford; Mr. Cornish, Manchester; Messrs. Garden and Co.; Mr. Layton, Kelsor; Mr. Slyer, Brighton; Mrs. Grubb, St. Leonards; Messrs. Stirley and Clifford, Stafford; Mr. Potter, Sheffield; Dr. A. B. Squire; Mr. H. Kimpton, London; Mr. Casson, Ulverston; Mr. Armstrong, Newton; Dr. B. W. Richardson, Teignmouth; Dr. Gorman, Cape Town; Dr. J. Edmunds; Mons. J. Durand; Dr. Mears, London; Mr. R. Cresswell, St. Helena; Dr. Campbell, Carlisle; Dr. Sturges, London; Mr. E. Vitali, London; Dr. Wyllie, Edinburgh; Dr. Macadam, Edinburgh; Mr. Hindmarsh, Alnwick; Dr. Sinclair, Dundee; Mr. Berridge; Mr. Laing, Truro; The Director-General of the Army Medical Department; J. F. N.; H. H. N.; Clericus; M.R.C.S., London; Coward; Lunacy, London; Omega; J. A., Callington; B.M.; L.R.C.P.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Walley, Bradford; Miss Emblin, Coventry; Mr. Black, Edinburgh; Mr. Field, Taunton; Dr. M'Neill, Tiverton; Mr. Griffiths, London; Mr. Nichols, Wallingborough; Mr. Hammett, Taunton; Dr. Combe, Exeter; Mrs. Gauntlett, Kensington; Mr. Newton, Exeter; Mr. Francis, Cambridge; Messrs. Horne and Co., Edinburgh; Dr. Spowart, Sheffield; Mr. Robson, South Shields; Dr. Skerritt, Bristol; Mr. Cullimore, Ennis; Mr. Hudson, Swindon; Messrs. Foote and Son, Sheffield; Mr. Farmer, Bridgwater; Mr. Thorp, Hertford; Mr. Williams, Sunderland; Miss Flowers, Leicester; Mr. Seymour, Coventry; Mr. Kinder, Leicester; Mr. Philpot; Mr. White, Bethnal-green; Messrs. Smith and Son, Manchester; Mrs. Pearce, Camelford; Mr. Heywood, Manchester; Mr. King, Gloucester; Mr. Stodart, Finsbury; Mr Pinder, Bow; Messrs. Porteous and Co., Glasgow: Mr. Haywood, Whitstable; Mr. Wicks, Bicester; X. F. Z.; G. H. B., Holloway; S. R.; Medicus, Birmingham; Medicus, Sheffield; J. W.; Dispenser, Liverpool; R. H. J.; Mercury; Tarsus; Arachnoid; A. H. J.; A. A.; Medicus; M. A. F.; Medicus, Leeds; A. B., Ambleside; Polygala; Beta, Lewes; F. J. N.; Registrar, Bath; Medical, Bath; H. R. L.; Hollinbrook; S., Liverpool; King's-road, Chelsea; Delta; W. B. M.; M. P., Manchester; P. F. R. C. S.; G. H., Newcastle; J. P., Melton; Beta, Lewisham; Medicus, Darlington; H. B. M.; Medicus, Chesterfield; Medicus, Edinburgh; D.; Medicus, Chester; A. B., Liverpool; V. B., Brighouse; A. B., Worcester; Alpha, Talk-on-the-Hill; M.D., Devonport; No. 613; E. C. M. P., Holloway; &c.

Western Gazette, City Press, Frances Médicale, Revista de Medicina, Canadian Journal of Medical Science, Indian Medical Gazette, Coffee Public-house News, St. Louis Courier of Medicine, New York Herald, Science, Hertfordshire Mercury, Monthly Homœopathic Review, Boston Medical and Surgical Review, El Médico y Cirujano Centro-Americano L'Union Médicale d'Orient, Peochow Herald, &c., have been received.

Medical Diary for the ensuing Week.

Monday, Sept. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Sept. 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

Friday, Sept. 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 11.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

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